THE LANCET

Offices: 7, ADAM STREET, ADELPHI, W.C.2.

Telegrams: LANCET, RAND, LONDON. Telephone: TEMPLE BAR 7228 and 7229.

No. XXVI. OF VOL. II., 1932. LONDON, SATURDAY, DECEMBER 24, 1932 Pp. 96 — Price 1s.

No. 5704. Vol. CCXXIII. Founded 1823. PUBLISHED WEEKLY. Registered as a Newspaper. Annual Subscription: Inland £2 2s. Abroad £2 10s.

OXFORD MEDICAL PUBLICATIONS.

SEE PAGE 3

Recently published by A. & C. Black, Ltd.

A CENTURY OF PUBLIC HEALTH IN BRITAIN, 1832-1929.
By HARLEY WILLIAMS, M.D., D.P.H.
320 pages. 7s. 6d. net (*by post* 8s.).
" .... makes not an unworthy companion to Simon's great work, and may with advantage be read in conjunction with it."—*Dr. Johnstone Jervis.*

BY LIEUT.-COL. ROBERT HENRY ELLIOT,
M.D., B.S. Lond., F.R.C.S. Eng., I.M.S., retd.
A TREATISE ON GLAUCOMA.
2nd Edition. Revised and Enlarged. 30s. net.

TROPICAL OPHTHALMOLOGY.
With 7 Plates and 117 Illustrations. 31s. 6d. net.
Spanish and French Editions, 1922. Full German Abstract.

THE CARE OF EYE CASES: 12s. 6d. net.
MANUAL FOR NURSES, PRACTITIONERS, AND STUDENTS.
Chinese Edition. Oxford University Press.

GLAUCOMA 4s. net.
A HANDBOOK FOR THE GENERAL PRACTITIONER.

THE INDIAN OPERATION OF COUCHING FOR CATARACT
7s. 6d. net. H. K. Lewis and Co. Ltd.

DISEASES OF THE THYROID GLAND.
WITH SPECIAL REFERENCE TO THYROTOXICOSIS.
By CECIL A. JOLL, M.S., B.Sc., F.R.C.S. (Eng.).
Crown 4to. Fully Illustrated. £3 3s. net.
" A work which is almost encyclopædic in its content, and is in every way a most remarkable achievement."—BRIT. MED. JNL.
" This splendid monograph, which is obviously the outcome of many years' work by the author, must long remain the source of reference on the subject."—PRACTITIONER.
William Heinemann (Medical Books) Ltd., 99, Great Russell-street, London, W.C.1.

THE CLINICAL INTERPRETATION OF AIDS TO DIAGNOSIS.
Vols. I and II. Price 10s. 6d. each. Postage extra.
" A guide to the interpretation and application of the more important methods of special Investigation now in vogue."
—GLASGOW MED. JOUR.
" This work is of real practical value and we recommend it confidently."—MIDDLESEX HOSP. JOUR.
London: THE LANCET LTD., 7, Adam-street, Adelphi, W.C.2.

ARTIFICIAL PNEUMOTHORAX
PRACTITIONERS SERIES
By L. S. T. BURRELL, M.A., M.D. Cantab., F.R.C.P. Lond.
Demy 8vo. Illustrated. 12s. 6d. net.
William Heinemann (Medical Books) Ltd.,
99, Great Russell-street, London, W.C.1.

H. K. LEWIS & CO. LTD.,
MEDICAL PUBLISHERS AND BOOKSELLERS.
MEDICAL AND SCIENTIFIC CIRCULATING LIBRARY
CHRISTMAS HOLIDAYS, 1932.
All Departments will be closed DECEMBER 25th, 26th, and 27th.

London: 136 & 140, Gower-street, W.C.1.

FRACTURES.
By MEURICE SINCLAIR, C.M.G., M.B., CH.B. (EDIN.).
With an Introduction by Sir ROBERT JONES, Bt., F.R.C.S.
Pp. 550. 337 X-Ray photographs, photographs and diagrams. 24s. net.
Constable & Co., Ltd., London.

BY KENNETH M. WALKER, F.R.C.S.,
M.A., M.B., B.C.
DISEASES OF THE MALE ORGANS OF GENERATION.
Pp. 246. Coloured Plate and 78 Illustrations. 12s. 6d. net.
THE ENLARGED PROSTATE.
Pp. 212. Coloured Plate and 59 Illustrations. 12s. 6d. net.
MALE DISORDERS OF SEX, 5s. net. (Jonathan Cape.)
Oxford University Press. Amen House, London, E.C.4.

NOW READY. Price 2s. net; postage 1d.
DISEASES OF THE HEART
IN RELATION TO ANÆSTHETICS FOR DENTAL OPERATIONS.
By BELLAMY GARDNER, M.R.C.S., L.R.C.P. Lond.,
Late Anæsthetist and Instructor in Anæsthetics at Charing Cross Hospital and the Royal Dental Hospital of London; Honorary Anæsthetist to the King George Hospital, the Royal Orthopædic and the Male Lock Hospitals.
John Bale, Sons & Danielsson, Ltd.,
83/91, Great Titchfield-street, London, W.1.

CANCER OF THE RECTUM
ITS PATHOLOGY, SYMPTOMATOLOGY AND TREATMENT.
By W. ERNEST MILES, F.R.C.S., HON. F.A.C.S.,
Surgeon Emeritus (with beds) to the Cancer Hospital: Surgeon to the Gordon Hospital for Diseases of the Rectum, &c.
80 pp. and 33 plates, bound cloth. 7s. 6d. net, post free 7s. 10d.
" It is the best exposition of the subject with which we are acquainted."—BRITISH JOURNAL OF SURGERY.
Harrison & Sons, Ltd., 44, St. Martin's Lane, London, W.C.2.

THERAPY OF PERSONAL INFLUENCE.
By EDWIN HOPEWELL-ASH, M.D. Price 2s. 6d.
Various psycho-physical methods illustrated by cases.
Obtainable from BM/ELHA, London, W.C.1.

OESOPHAGEAL OBSTRUCTION:
ITS PATHOLOGY, DIAGNOSIS AND TREATMENT
(including four chapters on Cancer of the Œsophagus).
By A. LAWRENCE ABEL, M.S. Lond., F.R.C.S. Eng.,
Assistant Surgeon to the Cancer Hospital, &c.
Pp. 245. 132 Illustrations. 2 Col. Plates. 30s. net.
" Masterful and complete . . . Cannot be too highly praised."
—SURG. GYN. AND OBSTET. JOUR.
Oxford University Press, Amen House, London, E.C.4.

KEGAN PAUL

have just published, with 113 Illustrations, 21s. net,

THE GENESIS OF CANCER

By W. SAMPSON HANDLEY, M.S. London, F.R.C.S., Surgeon to the Middlesex Hospital.

EXTRACTS FROM REVIEWS.

" No one who knows and appreciates Mr. Handley's work—and who does not—will lightly disregard any observations he makes on the cancer problem. If we are not convinced of the truth of his theory, we are grateful to him for an interesting and stimulating deliverance."—*The Lancet.*

" Should be read by all medical practitioners for it is an outstanding contribution to a subject of prime importance. . . . This book of Sampson Handley's is an important chapter in the history of cancer research and if it is not the whole truth it at least is part of the solution of the problem."
—*New Zealand Medical Journal.*

" . . . contains a new theory of the cause of carcinoma and the evidence upon which it is founded and will doubtless arouse much interest."
—*British Medical Journal.*

" . . . will greatly enhance the reputation Handley has acquired, not merely as a distinguished surgeon, but as a theorist and as an investigator of striking originality."—*Journal of the Cancer Research Committee of the University of Sydney.*

JAN -5 1933

PANTHESINE BRAND BALM

THE NEW ENDERMIC MEDICATION

Acts by inhibiting pain sensations and checking inflammation

A recent paper, published in the *Medical Review of Reviews*, describes twenty-four cases where **Panthesine Balm** brought gratifying relief.

Trial Tube and literature sent on request to any member of the Medical Profession

THE SANDOZ CHEMICAL WORKS (*Pharmaceutical Department*)

Agency: **5, Wigmore Street, London, W.1**

ZŌPLA STRAPPING

The Standard

Demand the plaster that does its work well.

All British, it is used by all surgeons who appreciate reliability under all conditions.

It does not just stick, it GRIPS.

Always constant in quality. Now packed in all-metal container.

SEND FOR SAMPLE AND PRICE LIST.

LESLIES LTD., High Street, Walthamstow, London, E 17

Manufacturers of Surgical Plasters since 1823.

VALENTINE'S MEAT-JUICE

The **Power** of **Valentine's Meat-Juice** to be **Retained**, to **Aid Digestion**, and to **Sustain** and **Strengthen** when **Other Food Fails** has been **Demonstrated** by **Hospital Physicians** and **General Practitioners.**

Pneumonia and Influenza

William H. Peters, M. D., *Admitting Physician Camp for Consumptives, State of Rhode Island, Providence, R. I.*: "VALENTINE'S MEAT-JUICE was the only nourishment retained by my five-year-old daughter during an attack of Pneumonia. She is still taking it and gaining strength. I consider that it saved her life and believe it to be the best product of its kind on the market."

Cavalier Dr. Enrico Ballerini, *Late Surgeon to the Hospital of Rome, Italy:* "I have used VALENTINE'S MEAT-JUICE in the treatment of patients and also personally after having been very ill with Influenza, and I must say it is an excellent tonic in conditions of great organic weakness. It is also very agreeable. I have prescribed it with the greatest satisfaction for convalescents and invalids restricted to a liquid diet."

For Sale by European and American Chemists and Druggists.

VALENTINE'S MEAT-JUICE COMPANY

Richmond, Virginia, U. S. A.

A-12

THE LANCET

A JOURNAL OF BRITISH AND FOREIGN MEDICINE, SURGERY, OBSTETRICS, PHYSIOLOGY, CHEMISTRY, PHARMACOLOGY, PUBLIC HEALTH, AND NEWS

No. 5704 LONDON, SATURDAY, DECEMBER 24, 1932 CCXXIII

CONTENTS

THE WHOLE OF THE LITERARY MATTER IN THE LANCET IS COPYRIGHT

ADDRESSES AND ORIGINAL ARTICLES

Hare-lip: Operations for the Correction of Secondary Deformities. By Sir HAROLD GILLIES, .R.C.S., and T. POMFRET KILNER, F.R.C.S.—(*Illustrated*) . 1369

Congenital Heart-block. By JANET K. AITKEN, M.R.C.P.—(*Illustrated*). 1375

The Incidence of Albumin and Sugar in the Urine of Normal Women. By G. W. THEOBALD, M.R.C.P.—(*Illustrated*). 1380

CLINICAL AND LABORATORY NOTES

Diagnosis of Disseminated Sclerosis by Graphic Registration and Film Tracks. By Miss F. JANVRIN and C. WORSTER-DROUGHT, M.D.—(*Illustrated*) 1384

A Case of Fibroma of Stomach. By A. BASIL ROOKE, F.R.C.S..... 1384

MEDICAL SOCIETIES

Royal Society of Medicine: Section of Obstetrics and Gynæcology.—Maternal Mortality and Morbidity 1385

British Institute of Radiology: Annual Congress.—Late Effects of X Rays.—(*Concluded*) 1386

REVIEWS AND NOTICES OF BOOKS

Principles and Practice of Otology. By F. W. Watkyn-Thomas, F.R.C.S., and A. Lowndes Yates, F.R.C.S. 1389

The Human Body and its Functions. By C. H. Best, M.D., and N. B. Taylor, M.D. 1389

Practical Anatomy. By E. B. Jamieson, M.D. 1390

Allen's Commercial Organic Analysis. Edited by C. A. Mitchell, D.Sc. 1390

Elements of Medical Treatment. By Robert Hutchison, F.R.C.P... 1390

The Sanity of Hamlet. By Macleod Yearsley.. 1390

LEADING ARTICLES

THE PREVENTION OF MALARIA 1391

EVIDENCE UNDER THE MEDICAL ACT 1392

THE EARLY LESION IN TUBERCULOSIS 1392

ANNOTATIONS

Children by the Sea..... 1394

Prof. Jellinek Honoured.. 1394

Peptic Ulcer and Gastric Carcinoma 1394

Leeuwenhoek's "Little Animals" 1395

Visual Acuity 1395

The Proper Use of Sanatoria 1396

The Flying Doctor in Australia 1396

Public Analysts 1396

South African Institute for Medical Research.. 1397

The Development of Plastic Surgery 1397

SPECIAL ARTICLES

King Edward's Hospital Fund for London..... 1398

London School of Hygiene and Tropical Medicine 1399

Medicine and the Law: Posing as a Medical Man.—Face Powder not Medicine. — Ecclesiastical Qualifications.. 1400

Research at the London Hospital 1401

Scotland: Retirement of Sir E. Sharpey-Schafer 1406

Infectious Disease in England and Wales.... 1403

THE SERVICES

Royal Naval Medical Service.—Royal Army Medical Corps 1397

THE DOCTOR'S DAY

VII.—The Established Consultant 1402

CORRESPONDENCE

Albuminuria and Pyelitis in Pregnancy (Miss Gladys H. Dodds, Dr. Dugald Baird)..... 1404

A Well-deserved Apology (Sir Harold Gillies) 1405

Radiotherapy in Bronchial Asthma (Dr. F. Hernaman-Johnson) 1405

Fractures of the Spine with Paraplegia (Mr. R. Watson Jones) 1405

Wanted Fœtal Adrenal Glands (Prof. Samson Wright and Dr. A. T. Wilson) 1405

Hospital Design (Dr. H. Gainsborough) 1406

Epistaxis Without Telangiectasia (Dr. H. G. Garland) 1406

The Society for the Provision of Birth Control Clinics (Dr. W. A. Hislop) 1406

OBITUARY

Edward Treacher Collins, F.R.C.S.—(*With portrait*) 1407

Robert George Robson, M.D. 1408

John Glaister, M.D.—(*With portrait*) 1409

PARLIAMENT

Notes on Current Topics: Housing and Slum Clearance.—Cancer Hospital Bill.—Essex County Council Bill.—Antivivisection Petition..... 1410

House of Commons: Sale of Radio Active Substances.—Duties of Metropolitan Police.—Dental Experiments on Animals.—Infant's Death after Vaccination.—Radium Supplies.—Typhoid at Malton.—Maternal and Infant Mortality.—Explosions in Mines.—Milk Pasteurisation 1411

MEDICAL NEWS

Univ. of Cambridge.... 1413

Univ. of London..... 1413

Roy. Coll. Surg. Eng..... 1413

Univ. of Manchester 1413

Univ. of Edinburgh..... 1413

Univ. of Birmingham.... 1414

Univ. of Durham 1414

Univ. of Liverpool 1414

Belfast Children's Hospital 1379

Miller General Hospital.. 1379

Doncaster Infirmary "Christmas Draw" .. 1383

A Roman Catholic Hospital 1401

Motor Accidents at Stourbridge 1409

Food Education Society 1414

The Fripp Lectureship .. 1414

Medical Society of London 1414

Univ. of Cairo 1414

Univ. Coll., Nottingham 1414

Poplar Hospital for Accidents 1414

Nordhoff-Jung Cancer Prize 1414

Hunterian Society 1414

Extension of Manor House Hospital 1415

Organising a Contributory Scheme 1415

Marie Curie Hospital for Cancer..... 1415

A "Garden City" for Asylum Staff 1415

Enlarged Powers for Manchester Infirmary.. 1415

Dundee Dental Hospital 1415

Metropolitan Hospital Sunday Fund 1415

Worthing Hospital..... 1415

NOTES, COMMENTS, AND ABSTRACTS

The Late Results of Artificial Pneumothorax Treatment 1416

New Preparations: Essogen. — Chloroform Brisettes 1416

A Presentation to Mr. W. S. Murrell 1416

Yellow Fever in History 1416

Anæsthesia Record Cards 1416

Furred Tongue 1416

Appointments 1415

Vacancies 1415

Births, Marriages, Deaths 1415

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY LIMITED

(FOUNDED 1892)

President: Sir JOHN ROSE BRADFORD, Bart., K.C.M.G., C.B., C.B.E., M.D., F.R.C.P., F.R.S.

Trustees for the Reserve Fund:
Rt. Hon. LORD DAWSON, P.C., G.C.V.O., K.C.B., M.D., F.R.C.P. Sir JOHN ROSE BRADFORD, Bart., K.C.M.G., C.B., C.B.E., M.D., F.R.C.P., F.R.S. Sir SQUIRE SPRIGGE, M.D., F.R.C.P., F.R.C.S.

The Society was founded for the following purposes: To protect, support, and safeguard the character and interests of legally qualified Medical and Dental Practitioners; to advise and assist Members of the Society in matters affecting their professional character and interests; and to indemnify them in regard to actions, etc., undertaken on their behalf.

The Society is fully insured to an unlimited extent against all adverse costs and damages which may be awarded against Members in any action which the Society undertakes on their behalf.

Annual Subscription: £1. Entrance Fee: 10s. Assets exceed £52,000.
No entrance fee to those joining within 12 months of registration.

Application form, and full particulars, from the Secretary, Victory House, Leicester Square, W.C.2.
Telephone: GERRARD 4814.

Two Volumes now Available

SELECTED WRITINGS *of*

JOHN HUGHLINGS JACKSON

M.D., F.R.C.P., F.R.S.

Volume One on

EPILEPSY AND EPILEPTIFORM CONVULSIONS

Volume Two on

EVOLUTION AND DISSOLUTION OF THE NERVOUS SYSTEM: SPEECH: VARIOUS PAPERS: ADDRESSES AND LECTURES

Edited by JAMES TAYLOR, M.D., F.R.C.P.

With the advice and assistance of GORDON HOLMES, M.D., F.R.C.P., and F. M. R. WALSHE, M.D., F.R.C.P.

Over 500 pages in each vol. Price each 25/- net, postage extra (Inland 9d., Abroad 10d.).

ANATOMY IN THE LIVING MODEL

BY

DAVID WATERSTON, M.A., M.D., F.R.C.S.E., F.R.S.E.

Bute Professor of Anatomy in the University of St. Andrews.

276 pages. 74 illustrations. 16 coloured plates. Price 25/- net, postage 9d.

"Prof. Waterston has written a book which appears to be unique not only in its aim, but in the presentation of the subject . . . . It makes for an accuracy of observation which is so essential to post-mortem examinations, and can be read and re-read by the student, general practitioner, the surgeon and physician . . . ."
—*St. Bartholomew's Hospital Journal.*

DIAGNOSIS *of* MENTAL DEFICIENCY

BY

HENRY HERD, M.A., M.B., Ch.B.,

School Medical Officer, Manchester Education Committee;
Certifying Medical Officer to the Lancashire Mental Deficiency Authority.

284 pages. Demy 8vo. Fully illustrated with 39 Half-tone and 12 Line Blocks.
Published at 12/6 net, postage 6d.

"This excellent book . . . vigorously written . . . is the product of a practical, well-informed, sympathetic and philosophic mind. It is a book that should be read by everyone who is brought face to face with this problem."—*The Times Literary Supplement.*

HODDER & STOUGHTON, LTD., *Medical Publications*,
St. Paul's House, Warwick Square - - - - LONDON, E.C.4.

ADDRESSES AND ORIGINAL ARTICLES

HARE-LIP:
OPERATIONS FOR THE CORRECTION OF SECONDARY DEFORMITIES

BY SIR HAROLD GILLIES, C.B.E., F.R.C.S. ENG.

AND

T. POMFRET KILNER, M.B. LOND., F.R.C.S. ENG.

SURGEONS TO PLASTIC DEPARTMENTS, ST. ANDREW'S HOSPITAL, DOLLIS HILL, AND LONDON COUNTY COUNCIL HOSPITAL, HAMMERSMITH

THE best efforts of any surgeon at a primary reconstruction of a hare-lip, whether there is an associated cleft of the palate or not, usually leave some deformity. This varies in degree and character according to the severity of the case, the method employed, and the skill and experience of the surgeon.

The original deformities of the nose and lip are often so complex that it is unreasonable to expect any one primary operation, undertaken as it usually is at a very early age, to accomplish more than an aseptic closure with simple adjustment. This produces a sound basis for future work of a more cosmetic nature, and the surgeon should be able to employ the secondary procedures here described to free his patient entirely from any vestige of hare-lip stigma. Such a desirable result is certainly attainable more readily when the primary closure has been confined to a simple approximation than when complicated flaps have been employed.

Readjustment of the General Contour

The commonest contour deformity seen in old hare-lip and cleft palate cases is produced by flatness of the lip and depression of the nose. It is obvious that the flat lip is caused by a lack of forward projection in the underlying maxilla, most marked when the premaxilla has been removed, but present in a lesser degree in a large proportion of lips which have been constructed over complete alveolar clefts, either bi- or uni-lateral.

The type of depressed nose encountered may be defined as one which, as a whole, is situated nearer the vertical axis of the body than normal, and whose general line, if prolonged upwards, would meet that axis at an acuter angle than normal. This nasal deformity has a more complicated origin than that of the lip. Factors observed include: (1) the backward displacement of the maxillæ resulting from the scar tissue pull which follows successful closure of the palatal cleft; (2) a definite under-development of the normal amount of bone in those parts of the maxillæ which border on the pyriform opening; (3) the backward pressure of a tight lip; (4) a definite failure in the forward growth of the nasal septum. Unfortunately no measurements can be given to prove these deficiencies, but at least it will be found difficult to deny their existence. Frequently the depression of the nose is confined to the tip or lobule. This deformity will be dealt with later. The natural corollary to the backward displacement of the maxillæ is that the upper teeth come to lie well inside those of the lower jaw, creating inefficient mastication and an ultra-prominent lower lip.

The operative procedure that will be found most widely applicable to this type of lip and nose has been called the buccal inlay, and consists of the introduction of a Thiersch graft on a mould designed to free the lip and nose from the underlying retroposed maxillæ. Freeing and loosening the lip in this way allows the wearing of an upper denture sufficiently prominent to produce normal contour, and carrying, well in advance of the natural position, artificial teeth which articulate normally with the lowers. The effect is illustrated in Figs. 1, 4, and 8.

TECHNIQUE OF BUCCAL INLAY

Anæsthesia.—General, by the single-tube intra-tracheal method of Magill.

Dental appliance.—This is prepared beforehand and should consist of a simple metal-cap splint fixed to the existing teeth and carrying a small adjustable tray in front to support the moulding material used to build forward the contour and carry the Thiersch graft.

Thiersch graft.—The graft is cut first, for the amount of skin required can readily be estimated, and exposure of the arm to infection, from hands which have been previously working in the mouth and nose, is avoided. The surgeon cuts the graft while his assistant is engaged in arranging towels about the head and cleansing the teeth, gums, and nostrils. For graft-cutting we use a flat Thiersch knife, greased on its under surface, and a slip of board, the edge of which is also greased. The board slides in front of the knife along the hairless inner surface of the upper arm, and maintains an even flat skin surface from which a graft of considerable dimensions can be obtained. The raw surface is painted over with Whitehead's varnish and covered with vaseline-impregnated lint.

Freeing the soft parts and inserting the graft.—The pharynx having been packed off, so that there is no communication between the upper air-passages and the field of operation, incision is made along the upper buccal sulcus, penetrating the nasal cavity and being carried laterally over the surface of the maxilla on each side to a greater or lesser extent according to the degree of backward displacement of the nose. The drawback of the extensive lateral undermining is that it results in a certain amount of widening of the nares; this, however, can be remedied at a later stage. When the nose position as a whole is not seriously affected, the undercutting should not be carried outwards behind the alar bases, but should be confined to the central part of the lip and columella. As the tip of the nose is usually dragged down and back, scissors are passed through the mouth incision and, with one blade in each nostril, the membranous part of the septum is progressively divided until the nose tip comes forwards and upwards to the desired position. Blood is sucked away and a hot tampon is used to control hæmorrhage. Next, a piece of Stent's impression-taking material, steeped in boiling water, is taken and moulded between the lip and nose in front and the maxillæ behind, care being taken to prevent any excess passing into the nasal airways. The tray of the splint is fitted and the mould adjusted to it and manipulated to produce an exaggerated edition of the desired contour. The mould is set by dripping iced water over the parts and is then removed with the tray. After being dried it is held by an assistant to receive the previously cut Thiersch graft, raw surface outwards. When the one-piece graft has been stretched evenly over those parts of the mould which come into contact with raw surfaces, the whole contrivance—graft, mould, and tray—is pushed back into position, and the operation is terminated by tightening the screw

which holds the tray to the splint. Fixation of the upper lip by mastisol strapping is advisable, though not strictly necessary.

After-treatment.—The nose and mouth are kept clean and the mould is removed in about a week to ten days, when the graft is found to be perfectly adherent to all raw surfaces. Excess of graft is mopped or irrigated away and the tray and mould are cleaned and replaced for another two days, after which it is our custom to hand the patient over to the dental surgeon, who replaces the mould by a new one of black gutta-percha. This new mould is removed daily at first for cleansing purposes and later is cared for like an ordinary denture by the patient himself. Finally, the dentist fits a comparatively simple upper denture, hiding the malplaced upper teeth, blocking the oronasal communication, but leaving the nasal airways free, pushing forward the lip and nose base, and bearing teeth occluding normally with the lower ones. It is to be noted that this plate can be made more hollow and less bulky in front, behind the new artificial teeth, if some or all of the misplaced teeth be removed. The provision of this natural hollow behind the teeth has an important bearing on the use of the tip of the tongue in speech.

Results.—The results of this simple procedure are remarkable; the whole character of the face is altered for the better, while final successful operations on the lip and nose not only become obviously possible but are also more easily accomplished. The drawbacks are few. The patient is doomed to wear a denture (how many of us escape?); very occasionally a few drops of imbibed fluid leak through the nose; and occasionally an irritant rhinorrhœa persists for a time.

FIG. 1

Two examples of buccal inlay.

Readjustment of the Lip

Even when the general contour either has been corrected or is already correct, improvement in the shape, movement, and scars of the lip is usually found to be both possible and desirable.

THE PROLABIUM AND DEPRESSED NOSE TIP

One of the most common cosmetic faults is found in cases of double hare-lip, for the so-called prolabium is often placed so far down the lip that the lobule of the nose is dragged down with it. The vertical dimensions of the prolabium vary considerably, and it is necessary to make a very accurate diagnosis of what part of the local anatomy it represents before its correct treatment can be undertaken. If the skin of the prolabium were truly a part of the lip, then its incorporation *in* the lip should lead to no secondary deformities. In many cases it represents the base of the columella only, or a lateral continuation of the skin of the sides of the columella into the floors of the nares. One might describe it as that portion of skin joining the columella to the upper lip which forms the margin of the vestibule in this region and covers the posterior diverging end of the mesial crus of the alar cartilage. In consideration of this, it might better be termed the supralabium.

The mucous membrane of the premaxilla, having failed to unite with that of the advancing lateral processes, forms a pseudo-vermilion border for the prolabium and this has tempted many a surgeon to utilise it in the construction of the new lip margin, to the permanent detriment of the patient. There are cases, of course, in which the prolabium is fully developed and in these it is truly part of the lip. In partial double hare-lips this is often the case, and the prolabium forms the entire philtrum. This variability in the size of the prolabium appears to us to lend weight to the opinion that there is in all cases of cleft lip and palate a varying degree of non-development of tissue rather than merely a non-union of normally developed parts. From a lip plastic point of view, it is imperative in all cases of down-drawn nose tip to take the prolabial skin out of the lip and suture it so high upon the free border of the septum as will allow the tip of the nose to come forwards and upwards into normal position. To ensure this, it may be necessary to divide the membranous septum with scissors, which are carried even over the anterior border of the septum in order to free the parts sufficiently. The membranous septum is reconstructed later by sutures which maintain the corrected and advanced position of the columella and nose tip (Fig. 7).

Following the removal of the prolabium from the lip, there remains a V-shaped gap. The skin of the lip, the floor of the vestibule, and the base of the ala are carefully undermined by means of a blunt-ended knife. This loosens the false attachments of the alæ

and a buried catgut suture is inserted to gather the deep tissue together to support the columella from below and behind. This stitch draws in the alar bases and so improves the nose still further by narrowing the nostrils; at the same time it reduces tension on the scar which results from the approximation of the margins of the skin defect.

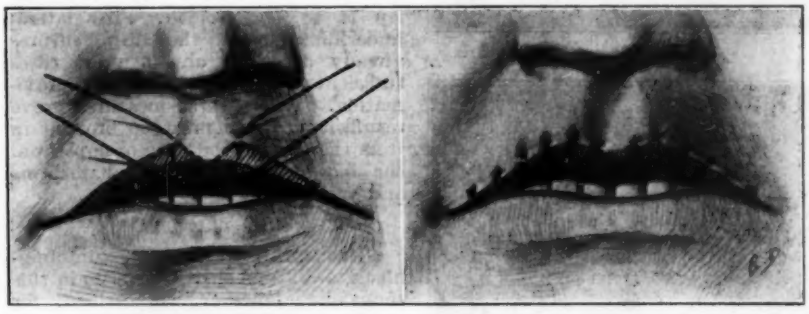
THE LIP SCAR AND THE LIP MARGIN

One of the procedures most commonly practised for the correction of secondary deformity in unilateral hare-lip cases consists of equalising the apposing edges produced by excision of the scar of the original closure, for one element, measured from nostril to lip margin, is usually found to be much longer than the other. The correction is so well known and so ably described by many writers that it need not be dealt with here. Suffice it to say that the Rose-type operation is the one used and that it gives excellent results up to a certain standard, especially if no complicated flaps have been cut in the first instance. In this paper, however, we are advocating a high standard of cosmesis, and so we may be pardoned if we suggest further procedures and deal with the reasons for attempting them.

As a preliminary sine qua non, great care must be taken to excise *all* scar tissue, to free the muscle layer from both skin and mucous membrane and suture it accurately with fine chromic catgut. Trauma of skin edges is avoided by the use of very fine hooks instead of forceps whenever possible. When the latter are used they are manipulated with a very light touch. Sharp knives, sharp and fine needles, and fine suture materials are essential. Eyeless needles mounted on the finest ophthalmic silk-worm gut are ideal for skin suturing. Even when the opposing edges have been accurately equalised, it will frequently be found that there is a general asymmetry of the lip; or, when this difficulty is not encountered or has been overcome the lip may look like that of the Irishman's caricature—very broad from above down, very straight across from angle to angle of mouth and with very little mucous membrane showing. This is an ugly lip and one which, though often satisfying the surgeon, still leaves no doubt as to the origin of the deformity.

FIG. 3

A B



Incision for Cupid's bow. Suture.

In cases of both these kinds a very pleasing "non-surgical" type of lip may be obtained by performing what we have called the Cupid's bow operation. In principle this consists in discarding altogether the existing skin-vermilion junction and making a new curved lip border at a higher level. The result is an attractive short lip with full mucous membrane, and at least a suggestion of a Cupid's bow (Figs. 2 and 5). The details of the operation are as follows.

Carefully planned incisions are made at the level chosen for the new skin-vermilion junction line (Fig. 3, A). These outline a triangular prolabial area and slope away, more or less rapidly according to the type of lip desired, towards the angles of the mouth. The precise angles of these incisions cannot be given, but the surgeon is more likely to err on the side of under-correction than on that of over-correction, for a considerable degree of straightening out of the line is usually noticed before the operation is completed; and this may become still more marked later on.

FIG. 2

Before operation (above) and after operation (below), illustrating the formation of Cupid's bow.

An incision is now made along the old skin-vermilion junction line and the mucosa is freed around the free border of the lip for some distance from the underlying muscle. It is sometimes necessary to trim away gross irregularities in the edge of the mucosal flap so formed, but this should be done with caution and only when it is seen that these irregularities cannot be made good use of, by adjustment during the suture, to help in the production of that desirable fullness of the mucosa in the centre of the lip. The skin between the two incision lines is removed and the edge of the mucosal flap is sutured (Fig. 3, B) by interrupted sutures to the new skin edge, the mucosa being gathered towards the centre part of the lip. Fine gossamer silkworm gut threaded on eyeless needles is used and the suture line is protected by a coating of Whitehead's varnish. The sutures should be removed as soon as possible, usually in three days, if unpleasant cross scars are to be avoided.

Certain refinements of this simple operation deserve special mention. We have found that where it is possible to leave

the point of the prolabial skin triangle attached to the mucosa, removing only a triangle of skin on each side, a very pleasing rolled-out effect on the lip margin is obtained. In some cases it is necessary to cut out a small triangle from the mucosa to accommodate the point of the prolabial skin triangle. In most cases it is necessary to snip the lowermost tight fibres of the orbicularis muscle before the free border of the lip can be made to assume the double-arched appearance at which the operation aims.

It should be realised that, apart from the cosmetic improvement obtained by this operation, the closure of the two elliptical or diamond-shaped defects produced by the excision has the effect of increasing the side-to-side dimensions of the lip margin much as the Rose-type closure of a lip cleft increases the vertical dimensions of the lip.

In a few cases, happily very few, there has been so much surgical and developmental loss of tissue that nothing short of grafting a whole thickness flap from the lower lip (Abbé's operation) is likely to give any striking improvement.

Readjustment of the Nose

DEPRESSED TIP AND BROAD FLAT LOBULE

This deformity is encountered in its typical form in cases of double hare-lip in which the prolabium has been drawn too far down into the lip at the primary reconstruction. We have seldom seen a case of double hare-lip, even where the premaxillary protrusion has been extreme, in which the actual tip of the nose was not, before operation, in perfect position. We consider that the deformity, therefore, is not an original one, but one produced by a repair which does not follow the ideal plan. It must be admitted freely, however, that it is frequently impossible to perform the primary reconstruction without drawing upon the prolabial skin, temporarily at any rate, to help in the closure. The treatment of the deformity has already been fully discussed in the preceding section.

FIG. 5

Two examples of the correction of crooked nose and flat ala. Note Cupid's bow.

If, in addition to the depression of the tip, there is separation of the intercrural angles of the alar cartilages producing excessive width of the lobule of the nose, correction can usually be obtained by carrying out the procedure already mentioned in which the incisions separating the prolabial skin from the lip are carried forwards in the membranous septum, freeing the mesial crura and allowing them to slide forward on the free border of the nasal septum to reform the tip of the nose (Fig. 7). In more severe cases it is necessary to carry these incisions still further to free the intercrural angles and the anterior parts of the lateral crura also. In some cases there is insufficient septal development to give prominence to the new tip, and a supporting graft of cartilage, fat, or fascia is required later (Fig. 4). The closure of the defect in the lip at the base of the columella in its new position is frequently difficult if pulling down the tip is to be avoided. Free lateral undermining and the deep sutures already described are in most cases sufficient to allow lateral skin approximation. Where these measures prove insufficient, tissue must be brought in from the sides in the form of flaps from the basal parts of the alar margins and vestibular floors.

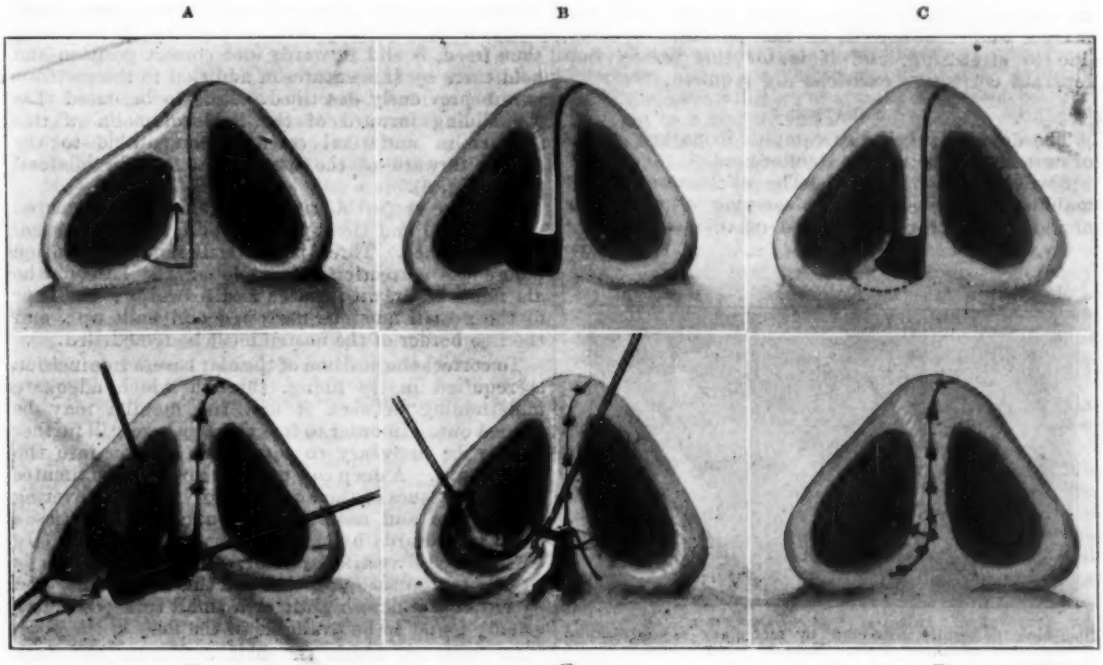
FIG. 4

Case illustrating the necessity for bringing the bridge of the nose forward by cartilage graft after buccal inlay.

THE FLAT ALA

Hitherto this has proved a stumbling-block to all surgeons. Optimism in this connexion, however, is justified, for the structural defects underlying the deformity are gradually being made clear and accurate diagnosis is therefore becoming possible. Cure seldom anticipates diagnosis, but is usually quick to follow it. Except from a viewpoint directly below the nostrils, one to which patients are seldom subjected except for the preparation of surgical text-book illustrations, the nostrils can be made to appear symmetrical (Fig. 5).

FIG. 6



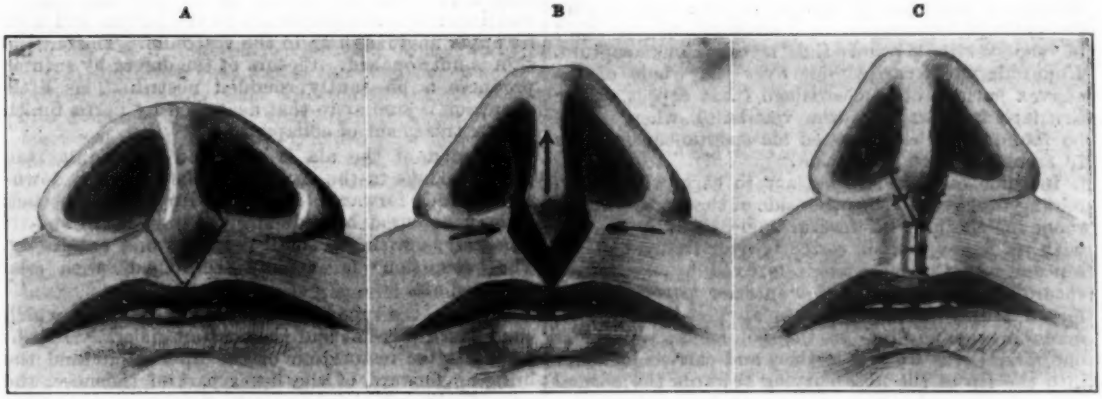
Operation for flat ala (severe). (A) First incision to advance the half-columella. (B) Half-columella advanced. (C) Secondary incisions to free alar base and to raise small triangular flap from floor of nostril. (D) Flap raised: alar base freed. (E) Flap transposed. (F) Final suture.

The following factors contribute to the production of this complicated deformity.

Situation of the nasal septum.—In the normal nose, the inferior border of the septum, from the point where it leaves the bridge line to pass backwards and downwards to the nasal spine of the maxilla, may be regarded as a definite peg on which are hung the mesial crura of the alar cartilages as well as the centre of the upper lip. In unilateral hare-lip cases which supply the majority of flattened alæ, the septum is carried with the larger element bodily over to one side of the middle line; it is, at the same time, so tilted that the support of the ala on the side of the smaller element is missing.

Maxillary under-development.—This factor has been mentioned before. In unilateral cases the smaller maxillary element appears to be poorly developed, especially in those parts which normally form the floor of the vestibule and the margin of the pyriform opening. This failure of bony development produces on the ala and nose tip a drag outwards and backwards which is seen in its severest form when the two crura of the alar cartilage are found, before repair, to be almost in a straight line. Too frequently, repair in such cases produces an intercrural angle much more obtuse than the normal, and one which is placed on a plane posterior to and lower than that of the other side.

FIG. 7



(A) Incision for flap tip (bilateral). (B) Advancement of tip. (C) Suture.

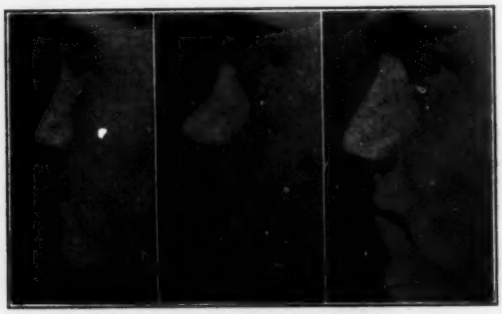
Other secondary distortions of the cartilages and their skin coverings are common. There is always an excessive width of the tissues between the alar margin and the margin of the pyriform opening, due to stretching, and it is for this reason that separate corrective excisions are required.

TREATMENT

The deformity being so complex in nature, means of cure cannot be rigidly standardised.

Straightening of the nose.—The whole nose may be mobilised and set straight by carrying out osteotomy of the nasal processes of the maxillæ and of the nasal bones themselves where they articulate with the frontal bone, followed by freeing of the septum from the nasal crest and spine of the maxilla. The freeing of the septum in its anterior part may usually be done submucously, but occasionally it is necessary to divide all its layers and displace it bodily before it can be persuaded to lie in the middle line. In severe cases of lateral deviation of the nose, the long side of the bony arch—that on the side of the smaller lip element—requires reduction by the removal of a wedge; if this is not done, a gap is left in the arch on the short side in the line of osteotomy when the nose has been re-set and there is a natural tendency for the nose to become deviated again by the approximation of the edges of this defect.

FIG. 8



Dish-face deformity corrected by secondary reconstruction, inlay and cartilage graft. Note pleasing eversion of lip margin.

Reposition of the alar cartilages.—The distorted alar cartilage must be mobilised in order to allow it to slide forward into symmetry with its fellow, and it must be fixed in this new position by suture. When the distortion is mild in degree, incision may be entirely intranasal—i.e., confined to the skin of the vestibule and the membranous septum. Undermining is carried out over the whole of the convex surface of the cartilage (that aspect of the cartilage furthest from the vestibule), when it will be found that the depressed ala spontaneously tends to assume a normal position.

In some cases it is necessary to carry the undermining well over to the other side of the tip to provide room for the new intercrural angle to lie in contact with its fellow and sit correctly over the end of the septum. In this position it is fixed by a mattress suture passing through the anterior parts of both mesial crura. In severe cases an incision must be made in the midline of the columella, separating one mesial crus from the other, and carried forwards into the tip of the nose curving towards the normal side. It is sometimes necessary to prolong the incision backwards, carrying it around the outturned extremity of the mesial crus and coming out into the vestibule. In all cases the intranasal incision, already described for milder cases, must be made in addition. The mesial crus, having been thus freed, is slid forwards into correct position and held there by skin sutures in addition to the mattress suture previously described. It is to be noted that the sliding forward of the half columella in this manner in unilateral cases is comparable to the sliding forward of the whole columella in bilateral cases (Fig. 6).

By these steps the intercrural angles are rendered symmetrical and the tip of the nose is made normal in appearance. Three points still require attention before the correction is complete: the base of the ala must be drawn inwards and forwards; the floor of the nostril must be narrowed and built up; and the free border of the nostril must be remodelled.

To correct the position of the alar base, a free incision is required in its lining, through which adequate undermining between it and the maxilla may be carried out. In order to free the alar base still further it may be necessary to carry this incision into the alar groove. A deep catgut suture now approximates the deep tissues of the alar base to the tissue covering the septum and nasal spine. Sufficient deep tissue is drawn inwards by this manœuvre to build up any defect in the vestibular floor, but a raw surface is usually left on the outer wall and this must be covered by either a Thiersch graft or a small transposed flap usually found to be available in the floor of the nose.

In cases in which the half columella has been advanced, care must be taken to free the alar base sufficiently to allow the skin edges to be approximated without tension; otherwise, the half columella will be dragged back again.

When the half columella has not been advanced, an emplacement must be found for the alar base by reflection of a triangular flap from the inner part of the floor of the vestibule. It is this triangular flap which is used to cover over the raw surface on the outer wall above the advanced alar base flap (Fig. 6).

There often remains an excess of nostril margin and lining which renders the result still imperfect. This can be corrected by excision of an ellipse of the free margin of the cartilage together with its vestibular lining. The broadest part of this excision is near the junction of the two crura and it is so planned that, when the defect is closed, the suture line lies inside the nostril and not on its margin. An unsightly kink in the nostril margin, caused by excess of lining, may be treated by excision of an elliptical area of vestibular skin at right angles to the margin and with its upper angle high up in the vestibule. The outside skin is not touched. Closure of the defect by sutures produces a pleasantly rounded nostril. This little operation is similar to that described by Ferris Smith for the treatment of collapsed ala.

Eversion of the ala is produced by sliding skin which belongs to the cheek near the alar base downwards and forwards into the lip reconstruction. It may be cured by reducing the lining skin and, if necessary, grafting a small patch of skin externally. The condition is usually combined with the flattened ala.

Often, in the type of case under discussion, in which the upper lip is flat and the contour generally "dish-faced," after restoration of the lip contour and the bringing forward of the lower part of the nose, the true backward displacement of the nasal bridge line becomes obvious and remains as a marked

cosmetic blemish. This defect is easily rectified by a single or hinged cartilage graft (Figs. 4 and 8). The technique of this operation has been amply described in various papers and text-books on plastic surgery.

To sum up: it is unlikely that all these procedures will be required in any one case, but in order to remove the hare-lip stigma the surgeon should be prepared to advise a group of them selected in accordance with the deformity, e.g.:—

Flat contour; depressed tip; wide nostrils.
Four operations will be required:—
1. Buccal inlay and provision of special prosthesis.
2. Plastic operation to re-form nose tip and narrow nostrils.
3. Cupid's bow operation on the lip margin.
4. Cartilage graft to nose bridge.

These may, with good technique, be combined into two operative stages.

Flat ala; crooked nose; irregular lip margin and bad lip scar.
1. Osteotomy of nasal bones and straightening of nose.
2. Alar plastic.
3. Muscle re-suture and Cupid's bow operation.

In most cases it is advisable to leave the Cupid's bow operation as a final pièce de résistance until after the lip scar has received attention and the muscle layer has been sutured.

Previous references to the use of the buccal inlay in hare-lip and cleft-palate surgery are to be found in the following papers:—

Gillies, H. D., and Fry, W. Kelsey: A New Principle in the Surgical Treatment of "Congenital Cleft Palate" and its Mechanical Counterpart, *Brit. Med. Jour.*, 1921, i., 335.
Kilner, T. P., and Jackson, T.: Skin Grafting in the Buccal Cavity, *Brit. Jour. Surg.*, 1921–22, ix., 148.

CONGENITAL HEART-BLOCK

By Janet K. Aitken, M.D., M.R.C.P. Lond.

PHYSICIAN, ELIZABETH GARRETT ANDERSON HOSPITAL; ASSISTANT PHYSICIAN, PRINCESS LOUISE (KENSINGTON) HOSPITAL FOR CHILDREN; PHYSICIAN IN CHARGE OF KENSINGTON RHEUMATISM SUPERVISORY CLINIC

Congenital heart-block is a rare abnormality. Up to the time this paper was written only 37 cases have been reported. It is possible, however, that with the increased use of electrocardiographic records a greater number of cases may be revealed. The subject is of interest on account of the variability of the signs and symptoms in the cases described, the disabling symptoms being apparently referable to the congenital cardiac lesions which are often associated with the block rather than to the dissociation itself.

Yater [5] in a comprehensive review of the literature (1929) laid down that unless the condition had been proved graphically soon after birth the acceptance of a diagnosis of a congenital origin in a case of heart-block was dependent on some evidence of the existence of a slow pulse at a fairly early age, and the absence of a history of any infection which might cause the condition after birth, notably diphtheria, rheumatic fever, chorea, and congenital syphilis. Additional evidence was the occurrence of syncopal attacks at an early age and the presence of other congenital heart lesions. He evidently required some evidence beyond his two main criteria as he has not included in his tabular survey a case reported by Calandre [34] in which, although the condition was not proved graphically until the age of 21, the slow pulse was noted at birth and there is no history of subsequent infection likely to cause this condition. He does include, however, the case reported by Smith,[14] although the congenital origin of the lesion was not suggested by the author—this is similar in that the condition was not graphically recorded until the patient was 20 and there is no history of subsequent infection. There is, however, additional evidence in that he gave a history of attacks of syncope between the ages of 3 and 9 years.

The cases of Calandre, Aldrich, and Case 2 reported below are here accepted as representing true congenital heart-block and therefore are included in this tabular survey, although the condition of heart-block was not graphically proved in extreme youth and there is no definite clinical evidence of associated congenital heart lesion. In the case of Calandre the bradycardia was noted from birth, in that of Aldrich at 4 years, and in my Case 2 it was not definitely recorded until the girl was 12 years old. In all three cases there is no history of attacks of syncope, no cyanosis, and no history of growing pains, rheumatic fever, chorea, diphtheria, influenza, or other serious illness. In Calandre's case there is a clinical report that the heart is apparently normal, in Aldrich's case no murmurs are reported, and in my Case 2 the murmurs are only noted in the prone position after exercise, similar murmurs being found too often in normal children to suggest in themselves a congenital heart lesion. In all three cases, however, it is difficult to believe that the heart-block could have been acquired in the absence of a history of any disease which is likely to produce this lesion; moreover, had such a lesion been acquired, the damage to the heart sufficient to cause permanent heart-block is extremely unlikely to have been so localised in character that the conducting system below the bundle and the muscle of the heart could be comparatively unaffected. This escape is proved by the excellent response to exercise in all these cases and by the normal form of the ventricular complex.

The case of Smith is similar to these three cases in that the block was not proved graphically at an early age; when it was discovered there were no symptoms of the condition, the response to exercise being very good, and there is no history of serious illness; however, as already mentioned, the attacks of syncope between the ages of 3 and 9 provide additional though not conclusive evidence of the congenital origin of the lesion.

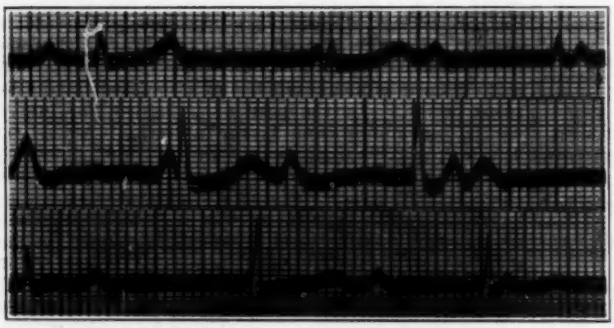
TWO NEW CASES

Case 1.—A boy, then aged 9, was first seen by me in 1929, at the Princess Louise Hospital. He had suffered from attacks of "blueness on exertion" with occasional syncope, since he was about a year old. He was the eighth child of a family with no history of cardiac abnormality; his birth was normal, he was breast-fed, and he progressed normally during infancy. He had an operation for intussusception at 9 months old at the West London Hospital, and at that time the pulse-rate was about 100. For the last four or five years, however, the general practitioner had noted a slow pulse.

There was no history of diphtheria, sore-throats, boils, scarlet fever, or definite juvenile rheumatism, although lately he had had pains in his legs on exertion. He appeared to be rather a plump boy with atonic muscles and slight flat-foot. There was no cyanosis except on exertion and after excitement, and no clubbing. The temperature was 99·2° F.; the pulse 40 and regular; after exercise it went up to 57. The area of cardiac dullness was slightly enlarged to the right and left extending to half an inch external to the nipple line. There was no thrill or pulsation of the vessels in the neck. On auscultation both sounds were heard in all areas, and there was a systolic murmur heard over the præcordium, the maximum being over the tricuspid area. There was a soft mid-diastolic murmur heard over the apex when he was lying on the left side. The blood pressure was systolic 130, diastolic 70. The tonsils were small and appeared healthy. The liver could just be felt below the costal margin. No other abnormality was found.

The boy was admitted to hospital and after three days the temperature settled, and the pulse remained at 40. The Wassermann reaction was negative. An electrocardiographic record taken at the National Heart Hospital through the courtesy of Dr. Strickland Goodall showed complete auricular-ventricular dissociation. The mid-diastolic murmur disappeared. Barium chloride gr. ¼ t.d.s. was given for some time and later, ephedrine gr. ½ b.d.; neither had any influence on the heart-rate. The effect of atropine is described later.

FIG. 1 (Case 1)



Before injection of atropine. Auricle 100 per minute; ventricle 62.

The latest electrocardiogram taken was in November, 1931, and there was no change in the complete auricular-ventricular dissociation. A diagnosis of congenital heart-block with patent interventricular septum was made. It is possible that the boy suffered from juvenile rheumatism in 1929, but his pains in the legs were not severe, were present in the legs only and came on with exertion, and were therefore not typical of rheumatism. He had also, however, a slight pyrexia for three days, and a transient mid-diastolic murmur at the apex. The history of cyanotic attacks on exertion and slow pulse preceded the rheumatic manifestations, and the block has remained unchanged for nearly three years since that date. The juvenile rheumatism, therefore, even if his symptoms were rheumatic in origin, which I think is doubtful, were superimposed on the congenital lesion.

CASE 2 was seen by me for the first time in February, 1931. She was a girl, aged 16, and was sent up to the Elizabeth Garrett Anderson Hospital with reference to admission into the civil service. Her doctor had noted an abnormally slow pulse; this slow pulse was recorded in 1927 by a school medical officer, but as the child was very healthy no further investigations were undertaken. Before that date, when the child was about 5 or 6, the mother recalls a practitioner's comment on the slow pulse, but there is no record of this observation. There is no evidence of any cardiac abnormality in the family history; the father and mother are healthy. The patient is an only child, and was born weighing 8 lb., the birth being normal. She was breast-fed, gained steadily, and has always been extremely healthy; she had whooping-cough and measles mildly, but has never had growing pains, rheumatic fever, diphtheria, bronchitis, sore-throats, boils, scarlet fever, or influenza. There is no history of cyanosis, syncope, or dyspnœa. She has been very active, and has undertaken strenuous exercise without discomfort. She was particularly successful at hurdle racing and showed no more breathlessness or fatigue than her rivals.

On examination she appeared to be a well-built healthy girl; the pulse was regular—48 at rest—and on exercise it went up to 58. The area of cardiac dullness was not enlarged. The apex-beat was forceful. There was no thrill or pulsation in the neck before exercise. On auscultation: standing, there was a slight roughening of the first sound in the mitral area, otherwise no abnormality. The pulmonary second sound was slightly accentuated. When the girl lay down after exercise, a systolic murmur at the apex could be detected slightly conducted towards the axilla; at the base a soft systolic murmur was to be heard in the pulmonary area and over the tricuspid, and the pulmonary second sound was accentuated. It was thought that auricular contractions could sometimes be heard over the base. The blood pressure was systolic 130, diastolic 65. The throat appeared healthy and the teeth were good, and no abnormality was found on examination of other systems. The Wassermann reaction was negative.

An electrocardiogram showed complete auricular-ventricular dissociation. The ventricular rate was 55, and the auricular rate 97. A second record taken a year later showed the condition to be unchanged. The teleradiogram showed no enlargement. Transverse diameter (right median distance + left median distance) = 11·7 cm. Transverse lung diameter = 24·3 cm.

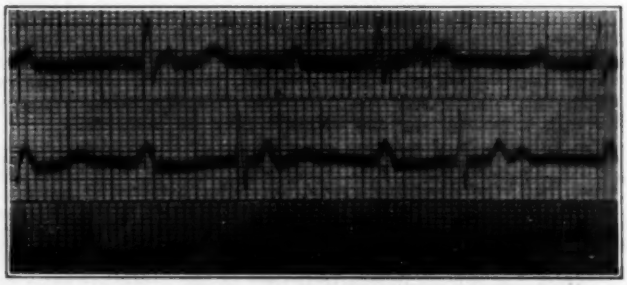
The effect of atropine on both cases was to accelerate both ventricles and auricles, but not to interfere with the complete auricular-ventricular dissociation.

A record was taken before and after the injection of atropine. In Case 1 the ventricular rate was 62 per minute and the auricular rate 100 per minute; 62 is not the normal pulse-rate in this case but the child was very excited—a few moments later the pulse had fallen to 56 per minute. A subcutaneous injection of atropine sulphate gr. 1/75 was given and further records were taken; the maximum acceleration was 40 minutes after the administration, when the ventricular rate was 94 per minute and the auricular rate 150 per minute. In Case 2 the ventricular rate was 55 per minute and the auricular rate 100 per minute. The maximum acceleration was 38 minutes after administration of atropine sulphate gr. 1/75. The ventricle was then contracting at the rate of 83 per minute and the auricle at the rate of 137 per minute.

COMMENTS ON REPORTED CASES

There would appear to be only one fully authenticated example of familial heart-block—that of Aylward.[36] Morguio[35] in 1901 wrote a description of five members of one family; he believed them to be cases of congenital heart-block as they all developed a slow pulse at the age of 4 and had frequent attacks of syncope and convulsions. On one of these cases an autopsy was held and the heart was dilated but was otherwise normal macroscopically. In all these patients the pulse varied in rate and volume and was irregular at all times; they are here excluded since there seems to be insufficient proof that they were cases of congenital heart-block. Fulton, Judson, and Norris,[7] 1910, reported heart-block occurring in a father and two children, one an infant. Yater examined the polygraphic tracings of all three; though confirming the presence of heart-block in the infant, he disagreed with the diagnosis in the other two cases. When Aylward first published his two cases, he had not had the opportunity of obtaining electrocardiographic records; tracings have

FIG. 2 (Case 2)



Before injection of atropine. Auricle 100 per minute; ventricle 55.

TABULAR SURVEY BASED ON THOSE OF YATER AND OF NICHOLSON, SHULMAN, AND GREEN

Case.	Author.	Sex.	Age when heart-block proved.	Age when slow pulse noticed.	Malformation.	Cardiac enlargement.	Grade of a.-v. block.	Slowest ventricular rate.	Cyanosis.	Other observations.
1	Van den Heuvel (1908) [6]	F	23 yrs.	15 yrs.	P.Iv.S.	+ + +	C.	34	+	Attacks of syncope since age 2.
2	Fulton, Judson, and Norris (1910) [7]	M	22 mths.	7 days.	P.Iv.S.	+	C.	42	N.	Father and older child had normal rhythm; not heart-block as reported.
3	D'Espine and Cottin (1915) [8]	M	8 yrs.	8 yrs.	?	+	C.	20	N.	Attack of syncope; congenital syphilis.
4	Whipham (1915) [9] ..	F	18 mths.	18 mths.	P.Iv.S.	+	P.	56	N.	No cardiac disability.
5	Whipham (1915) [9] ..	F	12 yrs.	6 yrs.	P.Iv.S.	+ + +	C.	40	N.	Well grown, some pain round heart on exertion.
6	Bass (1918) [10]	M	13 yrs.	12 yrs.	?	+	P. & C.	37	N.	Poor development; dyspnœa.
7	Gorter (1919) [11] ..	M	6 mths.	6 hrs.	?	?	C.	60	+	No syncopal attacks; no murmurs.
8	Rosenson (1920) [12] ..	F	10 yrs.	8 yrs.	A.P.	+ + +	C.	44	N.	Blue for several hours after birth; had had diphtheria.
9	Carter and Howland (1920) [13]	F	3 yrs.	3 yrs.	P.Iv.S.	+	C.	37	N.	Attack of syncope at age 4.
10	Smith (1921) [14] ..	M	20 yrs.	20 yrs.	?	+	C.*	43	N.	Attacks of syncope between ages 3 and 9; no obvious cardiac disability.
11	White, Eustis, and Kerr (1921) [15]	F	4 days.	8 hrs. prenatal.	P.Iv.S.	+ + +	P.	70	+	Mongolian idiocy; marked right ventricular preponderance in electrocardiogram.
12	White, Eustis, and Kerr (1921) [15]	M	6 yrs.	5·5 yrs.	?	+ +	C.	46	+	Wassermann positive.
13	Calandre (1921) [16] ..	M	21 yrs.	1 yr.	?	N.	C.†	40	N.	No obvious cardiac disability.
14	Bravo y Frias (1922) [17]	F	5 yrs.	4 yrs.	?	+	C.	46	N.	Fever at 4 months with cerebral irritation.
15	Barbier, Lebee, and Mouquin (1922) [18]	M	15 yrs.	15 yrs.	P.Iv.S.	+ +	C.	44	N.	Infantile development; bony anomalies.
16	Meyer (1923) [19] ..	F	18 yrs.	18 yrs.	P.Iv.S. P.S.	+ +	C.	63	+ + +	—
17	Romberg and White (1924) [20]	F	9 mths.	9 mths.	P.Iv.S.	N.	C.	50	+	Fairly well developed.
18	Nobecourt (1924) [21] ..	M	10 mths.	10 mths.	P.S.	+ + +	C.	60	+	—
19	Wilson and Grant (1925)*	F	14 mths.	14 mths.	P.Iv.S. M.	+ + +	P.	66	+ + +	Clubbed nose, fingers, toes; necropsy; histologic study
20	McIntosh (1927) [22] ..	F	7 mths.	7 mths.	P.Iv.S.	+ + +	C.	57	N.	Died at 8 months; no autopsy.
21	Lukin and Frey (19 ·7) [23]	F	8 yrs.	7·5 yrs.	?	-	C.	43	N.	Influenza at 3 years; "weak heart" diagnosed.
22	Davis (1927) [24] ..	?	13 mths.	13 mths.	P.Iv.S	;	C.	45	N.	—
23	Gibson (1927) [25] ..	F	13 yrs.	9 yrs.	P.Iv.S.	+	C.	50	+	Fairly good health.
24	Aldrich (1927) [26] ..	F	12 yrs.	4 yrs.	P.Iv.S.	?	P.	45	N.	Sudden death at age 13.
25	Shapiro (1927) [27] ..	F	9 yrs.	8 yrs.	P.S.	+ +	P.	44	+ + +	Sudden death.
26	Sprague and White (1927) [28]	F	12 yrs.	4 yrs.	P.Iv.S.	+	C.	40	N.	Block 2 : 1, May, 1924, complete. December, 1924; September, 1925.
27	Haverschmidt (1928) [29]	?	2·5 yrs.	2·5 yrs.	P.Iv.S.	+ + +	C.	55	+	—
28	Nisse (1928) [30]	F	7 yrs.	23 mths.	P.Iv.S.	+ +	C. & P.	48	N.	—
29	Perotti (1928) [31] ..	F	—	1 to 3 days.	P.Iv.S.	+	?	60	+	Necropsy; no histologic study.
30	Fleming and Stevenson (1928) [32]	M	3·5 yrs.	21 mths.	P.Iv.S.	+ +	C.	30	N.	Attack of unconsciousness at age 3½.
31	Fleming and Stevenson (1928) [32]	F	8 yrs.	8 yrs.	P.Iv.S. ? P.S.	+ +	P.	45	+ + +	Frequent attacks of fainting since patient began to walk.
32	Yater (1928) [4]	M	2 days.	2 weeks.	M.	N.	C.	47	+ + +	Multiple congenital anomalies; necropsy; histologic study.
33	Aylward (1928) [33] ..	F	6 yrs.	Birth.	P.Iv.S.	+	C.	40	+	Slight attacks of cyanosis during first six years; now fairly healthy.
34	Aylward (1928) [33] ..	F	1 mth. (!)	Birth.	P.Iv.S.	+	C.	40	+	Died at 3 months; pulse became irregular during attack of cyanosis.
35	Nicholson (1928) [34] ..	M	1 yr.	1 yr.	P.Iv.S.	+ +	C. & P.	80	+	—
36	Leech (1930) [35]	F	10 yrs.	5½ yrs.	M.	+	C.	47	+	Fair development.
37	Sclar [41]	M	14 yrs. 8 mths.	4 yrs.	P.Iv.S.	+	C.	48	N.	Loud systolic murmur over præ cordium.
38	Aitken (1931) ..	M	9 yrs.	5 yrs.	P.Iv.S.	+	C.	40	+	Attacks of cyanosis and syncope.
39	Aitken (1931) ..	F	16 yrs.	6 yrs. ‡	?	N.	C.	48	N.	Well developed; good health.

Abbreviations.—* Except during forced expiration; † Except during complete repose; ‡ Recorded 12 years; C., complete; M., multiple; N., none; P., partial; + slight; + + moderate; + + + marked; P.Iv.S., patent interventricular septum; P.S., pulmonary stenosis; A.P., aortopulmonary patency.

since been taken. Dr. Blaxland Levick and Dr. J. Parkinson both confirmed the presence of heart-block.

The family history is as follows: The mother suffers from Mikulicz's disease and the father has lost a leg, the result of trophic ulcers due to a war nerve injury. There is no history of venereal disease. The children affected are the first and fourth of the family. The first child, a girl, was born in 1922, and had a pulse of 40 soon after birth; she was a puny baby lacking energy and was cyanosed at times. She still survives and has grown into a fairly healthy girl, though quiet; she is able to run up hills without undue exertion. The next two children were boys and their hearts are normal. The fourth was another girl, and in this case the slow fœtal heart rate was noticed by Dr. Aylward before birth. She suffered from occasional attacks of cyanosis; at three months old, during one of these attacks, the pulse became irregular and she died.

It is difficult to give any definite indication with regard to prognosis in cases of congenital heart-block, since few cases have been described and death has only been reported in seven of these. The extent of the associated congenital heart lesions and the symptoms of disease would obviously have to be taken into account.

An analysis of the seven deaths shows that two died in infancy and had other gross cardiac abnormalities. A third had a patent interventricular septum with slight cyanosis and died at three days. A fourth also had a patent interventricular septum and died at eight months. A fifth died suddenly at nine years; she had pulmonary stenosis with marked symptoms. The sixth died at three months, during an attack of cyanosis; she had a patent interventricular septum and had had other cyanotic attacks. The seventh is much the most interesting case in this series as she died suddenly while standing in the water preparatory to bathing. This was a girl with no signs of other congenital defect and no symptoms at all; she had often bathed before and taken strenuous exercise. On the other hand three of the cases which show no symptoms of their congenital heart lesion are reported to have reached the ages of 21, 20, and 16 respectively. It would seem, however, that the prognosis would have to be guarded, even in those cases where associated heart lesions are not present.

DISCUSSION

Lewis [1] states that there are three chief ways in which heart-block may be caused: 1. By directly interfering with the conducting tracts, that is to say, the auriculo-ventricular node, the bundle or both branches of the latter. 2. By stimulating the vagus. 3. By introducing toxic bodies into the blood stream. In the case of congenital heart-block causes (2) and (3) can probably be put aside. Even if one could imagine vagal stimulation occurring in utero, the effect is usually transient and would not account for the long-standing block noted in most of the congenital cases. For instance, Starling [2a] reports the case of a patient suffering from attacks of unconsciousness due to failure of the ventricle to respond to auricular stimulation; these attacks could be induced by swallowing and were abolished by atropine, and it was thought therefore that they were due to vagal stimulation. Later, however, the patient developed complete heart-block which was unaffected by atropine, and at a post-mortem examination a gross and old-standing lesion of the bundle was found. The vagus therefore had been acting on a highly diseased structure, and Lewis [2b] is doubtful whether persistent heart-block in man is ever attributable to the action of the vagus only.

EFFECT OF ATROPINE

In the present series atropine has been given in 12 cases, and in no case has the dissociation been disturbed, although in some cases a dose sufficiently large to cause dry tongue and dilated pupils was given. In six of these cases the atropine had no effect upon the auricular or ventricular rate. (The dosage is not always stated, and in one case it is certainly rather too small for any effect to be anticipated.) In four of the cases both auricle and ventricle were considerably accelerated, although the dissociation held. In two cases the auricular rate was increased while the ventricular rate remained unchanged. Thus in no reported case has the paralysis of the nerve altered the degree of dissociation. It would seem therefore that vagal stimulation cannot be a factor in the ætiology of congenital heart-block.

The introduction of toxic bodies into the blood stream in utero would have a transient effect except in so far as they might cause direct interference with development of the conducting system, or other developmental defects of the surrounding tissues causing fibrotic pressure on the conducting tract. In none of the electrocardiographic records published or recorded has the form of the ventricular complex suggested that the initiation of the contraction is ventricular. We must suppose, therefore, that in congenital heart-block there must have been some prenatal direct interference with the conducting tract above its division, and that the independently originated ventricular complex probably arose high in the bundle of His. Theoretically, direct interference with the conduction between auricle and ventricle can only be caused by antenatal carditis, such as might be caused by syphilis or rheumatism involving the conducting tissues, or by developmental defects of unknown origin. Evidence as to the cause of congenital heart-block is scanty as there have only been three post-mortems on the reported cases, and these three cases all died in infancy and showed marked signs and symptoms of their associated congenital heart abnormalities. We have no post-mortem evidence pointing to the cause of the lesion in those cases which show remarkably little or no disability indicating their condition.

Keith [2] has pointed out that the ventricular cavities are down growths of the primitive cardiac tube, the septum being left between them during development. The upper margin of the septum thus represents a part of the lumen of the primitive heart. The main bundle and its two divisions represent the remnant of the invaginated portion of the atrial canal, the auriculo-ventricular bundle being the sole muscular connexion between the auricular canal and the ventricle, and the ring of tissue in the human embryo being broken anteriorly and laterally by the formation of the mitral and tricuspid valves. Further, Wilson and Grant [3] point out that according to Mall [4]:

"the remnant (the auriculo-ventricular bundle) holds a constant position just behind the posterior endocardial cushion immediately over the septum of the ventricle, a position which is marked first by the interventricular foramen and later by the membranous septum. In the destruction of the lateral and anterior walls of the atrial canal, not only does the endocardial thickening (of the cushion) play a rôle, but also the connective tissue of the epicardium. This last forms a collar encircling the auriculo-ventricular groove, and as the mitral and tricuspid valves develop, the epicardial connective tissue is drawn into them, thus completing the separation of the atrial and ventricular musculature."

Wilson and Grant prove that, in their case, there is an abnormal degree of separation, the fibrous tissue penetrating the auriculo-ventricular bundle, this penetration accounting for the partial heart-

block present. Total separation by fibrous tissue would explain the cases where complete heart-block is demonstrated.

In Wilson and Grant's case [3] the interventricular septum was almost completely absent, but Yater [5] accepts their explanation as not inappropriate in his case, which was one in which there was gross developmental abnormality with transposition of all of the viscera and great vessels except the ventricles of the heart; patent ductus arteriosus, patent foramen ovale, small patency in the intraventricular septum, and two semilunar cusps in the pulmonary artery. The cause of the heart-block was, as in the case of Wilson and Grant, a developmental defect, although in this case the mechanism was different, the bundle being completely severed from the auriculo-ventricular node.

Leech,[33] in his discussion as to the cause of congenital heart-block, found it difficult to accept the theory that it was due to failure of development of the conducting system, on the ground that such developmental anomalies would be likely to involve the whole tract and so cause an exhibition of abnormal ventricular complexes in the electrocardiogram; this difficulty, however, would also apply if the cause of the block were antenatal carditis. According to the published cases this is not so, the idio-ventricular focus of impulse being high up in the bundle of His, and the ventricular complex normal in form. It is not so much suggested, however, that the conducting system has failed to develop as that excessive formation of fibrous tissue has interfered with its continuity—the fibrous tissue which normally develops between the auricle and ventricle, leaving the auriculo-ventricular bundle as the sole muscular connexion between the two chambers, having passed the normal developmental limits, and so interfered with the auriculo-ventricular bundle at this point.

The grade of auriculo-ventricular block in the reported cases varies. In 25 cases the block is complete, in six it is incomplete, and in seven the block varied, being at times complete and at others incomplete. In one there is no graphic record. In 13 of these cases therefore it is obvious that the bundle has not been completely severed. It has been experimentally proved by Lewis [40] that even a single strand if undamaged is sufficient to preserve conduction and on the other hand that conduction is readily interfered with by pressure. In the case described by Wilson and Grant where 2 : 1 heart-block was present they were able to follow a few fine strands from the bundle to the ventricle, but these strands were encased in dense fibrous tissue. It is not unreasonable to suggest therefore that an incomplete dissociation or a variable dissociation could be due to even a slight variation of pressure on a tract the tissues of which are abnormally surrounded and interrupted by fibrous tissue, the block varying according to the tissue tension exerted upon the strands. In this respect two of the reported cases are of particular interest. In that of Smith [14] electrocardiographic records showed a complete heart-block at all times except during forced expiration when there was no block. X ray examination showed that the position of the heart in forced expiration was higher and more horizontal, and Smith supposed that in this position the tension was released and the bundle was therefore able to conduct. The case of Callandre [34] also showed complete dissociation except in complete repose, when a normal conduction was reported.

SUMMARY

The diagnosis of congenital heart-block depends on graphic findings with a history of a slow pulse from an early age, or the absence of a history of any infection which might cause the condition after birth.

A large proportion of the cases have other congenital heart abnormalities, the gross pathological symptoms being associated with these other lesions rather than with the heart-block. In three of the reported cases where there was no other congenital cardiac abnormality the patients were healthy well-grown people whose response to exercise was good.

The cause of the condition is probably the excessive formation of the fibrous tissue which normally develops between the auricle and ventricle, leaving the auricular-ventricular bundle as the sole muscular connexion between the chambers. The excess of fibrous development interferes with the continuity of the bundle.

REFERENCES

1. Lewis, T.: The Mechanism and Graphic Registration of the Heart Beat, London, 1925, p. 168.
2. Keith, A.: THE LANCET, 1909, ii., 519.
3. Wilson, J. G., and Grant, R. T.: Heart, 1925–26, xii., 295.
4. Mall, F. P.: Amer. Jour. Anat., 1912, xiii., 249.
5. Yater, W. M.: Amer. Jour. Dis. Child., 1929, xxxviii., 112.
6. Van den Heuval, G. C. J.: Proefschrift aan de Ryks Universitat, Groningen, 1908, xii., 142.
7. Fulton, Z. M. K., Judson, C. F., and Norris, G. W.: Amer. Jour. Med. Sci., 1910, cxl., 339.
8. D'Espine, A., and Cottin, E.: Bull. de l'Acad. de méd., 1915, lxxiv., 292.
9. Whipham, T. R.: Brit. Jour. Child. Dis., 1915, xii., 321.
10. Bass, M. H.: Jour. Amer. Med. Assoc., 1918, lxx., 287.
11. Gorter, E.: Nederl. maandschr. v. verlosk., 1919, viii., 377.
12. Rosenson, W.: Arch. Pediat., 1920, xxxvii., 103.
13. Carter, E. P., and Howland, John: Bull. Johns Hopkins Hosp., 1920, xxxi., 351.
14. Smith, S. C.: Jour. Amer. Med. Assoc., 1921, lxxvi., 17.
15. White, P. D., Eustis, R. S., and Kerr, W. J.: Amer. Jour. Dis. Child., 1921, xxii., 299.
16. Bravo y Frias, J.: Arch. espan. de pediat. de Paris, 1922, vi., 449.
17. Barbier, Lebec, and Mouquin: Bull. soc. de pediat. de Paris, 1922, xx., 11.
18. Meyer, P.: Arch. des mal du cœur, 1923, xvi., 16.
19. Romberg, E. C., and White, P. D.: Boston Med. and Surg. Jour., 1924, cxc., 591.
20. Nobecourt: Rev. gén. de clin. et de therap., 1924, xxxviii., 209.
21. McIntosh, Rustin: Amer. Jour. Dis. Child., 1927, xxxiv., 965.
22. Lukin, Nicholas, and Frey, D. L.: Arch. Pediat., 1927, xliv., 647.
23. Davis, J. H.: Amer. Jour. Dis. Child., 1927, xxxiv., 133.
24. Gibson, S.: Ibid. (Soc. Proc.), 1927, xxxiv., 1090.
25. Aldrich, C. A.: In discussion on Gibson (see ref. 24).
26. Shapiro, M. J.: Minnesota Med., 1927, x., 566.
27. Haverschmidt, J.: Nederl. Tijdschr. v. Geneesk., 1928, i., 1166.
28. Nisse, B. S.: Proc. Roy. Soc. Med. (Clin. Sect.), 1928, xxi., 438.
29. Perotti, D.: Boll. d. Soc. med. chir. di Pavia, 1928, iii., 1.
30. Fleming, G. B., and Stevenson, Mary M.: Arch. Dis. Child., 1928, iii., 221.
31. Aldrich, C. A.: Trans. Chicago Pediat. Soc., June 6th, 1927.
32. Nicholson, Gertrude, Shulman, H. I., and Green, D. L.: Amer. Jour. Dis. Child., 1929, xxxvii., 580.
33. Leech, C. B.: Ibid., 1930, xxxix., 131.
34. Calandre, L.: Arch. de cardiol. y hematol., 1921, ii., 225.
35. Morquio, Luis: Arch. de méd. des enf., 1901, iv., 467.
36. Aylward, R. D.: Brit. Med. Jour., 1928, i., 943.
37. Sprague, H., and White, P. M.: Clin. North Amer., 1927, x., 1235.
38. Starling, H. J.: Heart, 1921, viii., 31.
39. Lewis, T.: Op. cit. (ref. 1), p. 184.
40. Lewis, T.: Ibid., p. 77.
41. Sclar, M.: Amer. Heart Jour., 1930, vi., 269.

BELFAST CHILDREN'S HOSPITAL.—The Duchess of Abercorn, the president, recently opened this new hospital in Falls-road, Belfast. The cost, up to the present, has been £108,000. Power is being sought to institute a department for paying patients.

MILLER GENERAL HOSPITAL.—The annual report states that the income in 1931 was £42,769, and the expenditure £41,557. Of this income £8722 came from legacies, without which there would have been a heavy deficit. There were 2335 in-patients, whose stay averaged 21·44 days. The out-patients exceeded 30,000, and the need of a new department is "very great."

THE INCIDENCE OF ALBUMIN AND SUGAR IN THE URINE OF NORMAL WOMEN

By G. W. Theobald, M.D. Camb., M.R.C.P. Lond., F.R.C.S. Edin., F.C.O.G.

CONSULTANT OBSTETRICIAN TO THE HAMMERSMITH HOSPITAL; LATE PROFESSOR OF OBSTETRICS AND GYNÆCOLOGY, BANGKOK

Albuminuria has been one of the most widely discussed and at the same time one of the least understood symptoms in medicine. As has happened more than once in medical history, the confusion surrounding albuminuria was directly due to a brilliant discovery. Bright's epoch-making records, describing the association of albumin in the urine with nephritis, exercised so dominating an influence on physicians that they never looked for albumin unless other symptoms of nephritis were evident, and thus became convinced that albuminuria was synonymous with nephritis. For 50 years this opinion was universally held, and, be it noted, in the middle of a century when clinicians were clinicians indeed.

In 1877, however, von Leube [1] reported that 4 per cent. of the 119 presumably healthy soldiers he examined passed albumin in their urine, and that the number was increased fourfold if tests were made after they had performed a route march. He introduced the term "physiological albuminuria" to connote the passage of albumin in the urine in clinical amounts by healthy persons. The term is unfortunately now used to refer to the very minute traces of albumin which may be detected in all urines. Since his communication several hundreds of papers have been written on this subject, and it has been definitely accepted that a proportion of healthy men do pass albumin in their urines, but the percentages as given by the various authors range between 2 and 76 per cent.

Most writers on orthostatic albuminuria have obtained their material at hospitals or clinics, and have discovered the albuminuria in the course of the routine examination to which the children, who attended the institution because of symptoms, were subjected. It thus happens that, not only has orthostatic albuminuria been associated with nearly every possible symptom, but it was for a long time believed that but few sufferers from this symptom were really healthy. For this reason it is impossible to over-estimate the importance and significance of the paper by Bashford,[2] who showed that 5 per cent. of perfectly healthy boys who joined the post office suffered from orthostatic albuminuria.

He also reported that he had re-examined 30 of the earliest candidates, known to be suffering from albuminuria, who had been accepted by the Post Office, at intervals of from 7–14 and from 24–31 years after they had joined the service. At the first re-examination, in 1909, all the men enjoyed good health, although the symptom persisted in 6 out of the 30. In 1916 one of these men died from acute nephritis. In 1926 only 24 of the number were available for examination, but they all enjoyed good average health, and all the urines were albumin-free save one. The figures show that albuminuria is not incompatible with good health, and that the symptom tends to disappear after the second decade of life, although it may persist for 30 years.

One accurate paper dealing with normal healthy people has clarified the obscurity surrounding scores of papers dealing with the same symptom in unhealthy or poorly developed children. In other words, it is now known that the incidence of orthostatic albuminuria is as high in boys who attend hospitals because of symptoms as it is in healthy boys.

I have not been able to discover any figures showing the incidence of albuminuria in relatively large groups of women. It is hard to say whether this significant absence of figures is more due to the belief that catheter specimens are necessary in women or to the extreme difficulty in obtaining volunteers. The present investigation was made mainly because it is impossible fully to understand the albuminuria of pregnancy, unless we know the incidence of albuminuria in apparently healthy women who have never had children.

THE INQUIRY

Urines from the following four groups of women were examined :—

(1) 110 women residing at a London college, all being 17 years of age or over.
(2) 31 women of another college taking the arts course and about 20 years of age.
(3) 22 women medical students of University College and University College Hospital, about 20 years of age.
(4) 4 women secretaries about 30 years of age.

In addition, the following statistics are presented showing the incidence of albuminuria in—

(5) 5042 girls of 14 years of age who applied for employment in the Post Office.
(6) 912 women above the age of 25 who applied for employment in the same service.

At least three specimens, passed within 24 hours, were obtained from each woman included in the first four groups. In the first group the specimens were passed after lunch, after the evening meal, and the next morning before breakfast, but not immediately on rising. In the case of the other women the specimens were passed last thing at night, immediately on rising, and after either breakfast or lunch, the majority after the former meal.

Each volunteer was provided with a box containing three wide-necked and numbered bottles. These boxes were designed and kindly lent to me by Dr. W. W. Payne, of the Hospital for Sick Children, Great Ormond-street, to whom I express my sincere thanks, for without them this investigation could not have been so satisfactorily conducted. The supernatant urine was filtered, and no specimen was examined if it was not clear. To 1 c.cm. of the filtered urine 0·1 c.cm. of 100 per cent. trichloracetic acid was added. If a precipitate occurred the boiling test was also applied, dilute acetic acid being added by means of a pipette to the hot urine; and because the boiling test is most commonly used in the wards, the amount of albumin present was in every case estimated by this method. The following terms are used :—

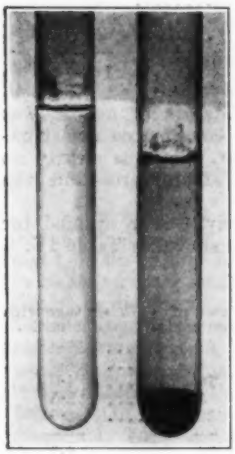
Faintest trace.—The precipitate can only be distinguished when the test-tube is held against a dark background.
Faint trace.—The precipitate is easily seen when the tube is held against a dark background
Trace.—The precipitate is seen when the tube is held to the window.
Cloud.—Between a "trace" and "One+" (roughly about 0·05 to 0·1 per cent. of albumin).
One+.—The precipitate is flocculent when hot (between 0·1 per cent. and 0·2 per cent. of albumin).

All the readings were made immediately after heating. Clinically a "trace" of albumin would be termed albuminuria.

The specimens were in all cases passed naturally, and the validity of the figures will undoubtedly be challenged for this reason. It is submitted that this objection is theoretical rather than practical, and comes from the physicians and pathologists rather than from practical gynæcologists.

It sometimes happens that a woman comes to a post-natal clinic and passes a urine containing a considerable amount of albumin. She is told to wait, is perhaps given a glass of water, and some time later a catheter is passed. The catheter specimen is free from albumin, and it is assumed that the albumin in the first place was due to contamination, and no notice is taken of the specific gravity of the two urines.

In the Figure two tubes of urine are shown, the one containing a moderately heavy deposit of albumin (0·4 per cent.), the other being albumin-free. The first specimen was passed when the woman arrived at the postnatal clinic, the other (on the left) about an hour later, no fluid having been taken in the meantime. Both specimens were passed naturally.



I have never found more than the "faintest trace" of albumin in a clear specimen of urine to be caused by contamination, and the surprising thing is that women whom one finds to have heavy leucorrhœal discharges usually pass specimens completely free from albumin. The experience of the antenatal clinics is that albumin is very rarely found in the urines of women who are six months or less pregnant, in spite of the fact that vulval and vaginal discharges are increased during pregnancy, and the specimens are not often filtered. Moreover, although albumin was found in the urines which 843 out of 5042 post office girls passed during the forenoon, it was very rarely detected in the specimens passed on rising. It might certainly be expected that the maximum contamination would occur in the early morning specimen, the discharges having had time to collect during the night. Finally, all the women medical students rejected the urine first voided, while some of them swabbed themselves, separated the labia, and abducted the thighs widely during micturition. This technique was so successful that no red blood corpuscles could be detected under the microscope in the centrifuged deposits of urines passed during menstruation. For these reasons I am convinced that the albumin found in these clean, healthy college women was not due to contamination during its passage.

THE RESULTS

In presenting the results, only those urines containing a "trace" or more of albumin are included.

Group 1 (110 *college girls*).—The numbers of urines containing albumin are shown in Table I.

TABLE I

	After lunch.	After tea.	A.M.
Albumin + ..	6	2	0
,, cloud ..	6	10	3
,, trace ..	14	6	8
	26 = 23·6%	18 = 16·4%	11 = 10%

The girls had to walk from their dormitories to lavatories in a central building, so that the incidence of albuminuria in the A.M. group is probably much higher than it would have been had the specimens been passed on rising. Of the 26 who passed albumin after lunch, 9 passed no albumin in the other specimens, a further 3 only passed a faint trace after tea, while the next morning 20 passed urines free from albumin, while those of only 4 contained more than a faint trace.

Five women passed albumin only in the A.M. specimens and 4 passed it only in the evening. Of the 110 women, 37, or 34 per cent., passed a trace or more of albumin in one or more specimens.

Group 2 (31 *arts students*).—A trace of albumin was present in four of the urines passed after breakfast and in one passed at night. Five women (16 per cent.) therefore passed albumin in one of the three specimens.

Group 3 (22 *medical students*).—Altogether 411 urines were examined from this group, 18 students providing specimens on four or more days, and 12 on six or more days, but the days were not always consecutive. Only 10 women consistently passed urines either free from, or containing less than a trace of albumin. A further 4 never passed more than a trace, and in 2 of these 4 the urines were clear except on one occasion. Only 4 women ever passed any albumin in the morning specimens, and of the 137 morning specimens a trace was only found twice and a cloud of albumin once. Four women always passed albumin in one of the daily specimens, and in one case only in the after-breakfast sample. One student passed albumin in considerable amounts, once ++, neither could the passage of this large amount be related to exercise. The figures obtained from this group show that the woman who frequently passes a faint trace is likely at times to pass it in larger amounts. Moreover, albuminuria is more easily provoked in such women.

Two medical students, who adopted the extreme technique during micturition, brought samples of urine on 16 and 17 days respectively, only the intervening Sundays being missed. Not the faintest trace of albumin could be detected in any of the 51 specimens from the one, while only 20 out of 48 specimens from the other were completely free from albumin, although the amount present did not exceed a cloud and was usually a faint trace or less. A tight elastic band was tied round the chest of the former and kept there for 20 minutes, but no albumin appeared subsequently in the urine. A few days later the band was applied for half an hour, during which time the student performed exercises. Notwithstanding these manœuvres only the very faintest trace of albumin could be detected in the urine passed shortly afterwards. On the other hand, in the case of the other student, the band applied less tightly and for only 20 minutes, digital compression of the inferior vena cava above the level of the entry of the renal veins for three minutes, or running up several flights of stairs three times—any of these manœuvres caused a cloud of albumin to appear in her urine immediately, and a faint trace to be still present the next morning.

Two other students in whose urines no albumin was detected during five days played fives for three-quarters of an hour, after which a trace of albumin was detected in the urines from both. In the urine from one some red blood corpuscles were seen but no casts.

One woman doctor provided samples of every specimen passed for five days, 27 in all. A cloud of albumin was discovered in one, a trace of albumin in two, and a faint trace in three, so that albumin in clinical amounts was found in 11 per cent. of the specimens she passed in five days.

Group 4.—Four women secretaries of about 30 years of age provided 57 samples of urine. In the case of two some amount of albumin was present each day in one or more specimens, and sometimes in clinical amounts. The other two passed faint traces of albumin from time to time.

The figures given showing the incidence of albuminuria in the morning specimens of urine need some explanation. It has already been pointed out that the 110 college women did not pass their urine immediately on rising. In the case of the medical students, if albumin was found in the morning

specimen it was usually present in the specimen passed the previous night. It is probable that if an apparently healthy woman (who is neither pregnant nor suffering from a large abdominal tumour) passes albumin in her urine after rest in bed for 24 hours she is suffering from nephritis, and this is one of the most valuable criteria for differentiating between nephritic and non-nephritic albuminuria.

I have had the opportunity of examining a few urines passed during menstruation by women who normally do not pass albumin in the urine. In no case was albumin present.

Acetic acid was frequently added to the cold urines in which albumin had been found, but nothing more than a slight precipitate was ever noticed.

I examined a considerable number of urines for casts. The supernatant urine was poured away and some of the remaining urine centrifuged for at least five minutes. A drop of the deposit was placed under a ⅓ in. cover-slip and examined. On no occasion did I discover more than one granular cast in the morning urine, and in the vast majority of urines none was present. While it is true that the field was, in places, obscured by epithelial debris, I am of the opinion that the presence of more than one cast, except after exercise, is definitely abnormal so far as women of 25 years of age, or under, are concerned.

POST OFFICE FIGURES

I wish to express my thanks to the secretary of the General Post Office for his permission to consult the female medical records and to publish the following figures, and to the chief medical officer of the Post Office, Colonel H. V. Prynne, for his courtesy and for the facilities he placed at my disposal.

The first group of figures deals with girls of 14 who applied between the years 1914 and 1932 for employment in the telephone service. No urines were examined during or within a few days of menstruation. The nitric acid and boiling tests were employed, and the great value of the figures lies, not merely in their size, but also in the fact that comparable results were obtained by a considerable number of doctors over a period of 18 years. A girl was accepted if she could bring two specimens passed first thing in the morning which were free from albumin. The amount of protein present in the midday specimen was not considered of any importance. The figures are shown in Table II.

TABLE II

—	Girls examined.	Cases of albuminuria.	Percentage.	Girls rejected because of albuminuria, either alone or associated with other symptoms.
A. 1914–June, 1916	607	135	22·2	4
D. 1928–Aug., 1922	1300	220	17	7
E. 1922–June, 1927	1383	235	17	14
F. 1928–1931 ..	1377	198	14·4	16
G. 1932	375	55	14·7	6
	5042	843	16·7	47 = 0·9%

In more than half of the cases albumin was found on two or more occasions in the specimens passed during the forenoon, although it was absent in the early morning specimens, except in 47, or 5·6 per cent., of the cases of albuminuria.

In order to see whether the symptom was more common in girls who had not menstruated, or whether it tended to disappear after the menses had commenced, 1000 consecutive cases were analysed with the results seen in Table III.

TABLE III

Age at which menstruation commenced.	Number of girls.	Cases of albuminuria.
10	4	1
11	29	5
12	120	5
13	366	49
14	297	34
Not commenced	184	22
	1000	116

As the girls were only 14 years of age it was possible that they might have commenced menstruation during their fifteenth year. There is clearly no marked association between albuminuria and the age of onset of menstruation.

The figures relating to Group 6 who applied for employment as charwomen are shown in Table IV.

TABLE IV

	Women examined.	Cases of albuminuria.	Percentage with albuminuria.
A	196	38	19·4
C	103	9	8·7
D	251	10	4·0
E	199	5	2·5
F	163	13	8·0
	912	75	8·2

The incidence of albuminuria in this group of women obviously varies considerably in the different years, but seeing that the same doctors examined both the women and the girls, it may perhaps be assumed that the yearly variations in the figures are partly accounted for by the relatively smaller numbers examined.

Table V. shows the incidence of albuminuria as it affected 663 women in the various age-groups from 25 years and onwards. Except in the last age-group, which includes women of 60 years and over, the percentages for the different ages are strictly comparable.

TABLE V

Ages	25–30	30–35	35–40	40–45	45–50	50 and over.
Number of women	53	81	139	205	129	56
Cases of albuminuria	6	8	13	20	10	8
Percentage of women with albuminuria	11·3	9·9	9·4	9·8	7·8	14·3

SUGAR

The majority of the urines in my inquiry were tested for sugar, and on no occasion was this substance found in clinical amounts. On the other hand, sugar, in larger amounts than is generally realised, was found in a high proportion of all the urines. The test used was Fehling's.

0·5 c.cm. of each of the two freshly prepared solutions were mixed and heated in a test-tube to which 2 c.cm. of heated urine were added, the tube being left to cool before reading. If the fluid were yellow it was called "P.R." (partial reduction), and if red and with a deposit, "+."

Many of the urines containing sugar + were tested with Benedict's solution and on every occasion this reagent was reduced. Moreover, one or two of these urines were boiled and put up with yeast and a small bubble was caused by the fermentation. "P.R." corresponds with not less than 0·05 g. and "one +" with not more than 0·5 g. of sugar per 100 c.cm. of urine. In a further large number of cases the solution was green, showing that slight amounts of sugar were present.

The results are given in Table VI.

TABLE VI.—*Showing the Numbers and Percentages of Urines in which Sugar was Found*

(*a*) 110 *College Women*

Amount of sugar.	Morning.	After lunch.	After evening meal.
+	15	5	22
P.R.	32	27	31
	47 = 43%	32 = 29%	53 = 48%

(*b*) 22 *Medical Students* (411 *specimens*)

	On rising.	After lunch or breakfast.	Last thing at night.
+	17	8	21
P.R.	53	29	49
	70 = 51·9%	37 = 27·4%	70 = 51·9%

It is evident that sugar is more likely to be found in the urine passed by healthy women last thing at night or first thing in the morning, and least likely to be found after lunch or breakfast. It is, of course, likely to be found shortly after a meal at which sweet things have been eaten. Only 11 of the 110 college women passed sugar in all three specimens, while 21 passed sugar in the morning urine although it was absent from the specimens passed the evening before. In the case of the medical students it frequently happened that the specimens passed last thing at night contained no sugar although it was present in the specimen passed first thing in the morning, when it was known that no aspirin had been taken and that the sleep had been undisturbed by nightmares. The group of women about 30 years of age was too small from which to draw definite conclusions, but 9 out of 18 urines passed at night contained sugar +, while 6 out of 18 passed first thing in the morning and only 3 out of 18 passed after breakfast contained sugar. Since commencing this investigation I have tested the urines of a number of hospital patients for this substance, using the same amounts of Fehling's solutions and urine, and it is most uncommon to obtain even a partial reduction of the reagent in these women.

Four conclusions might legitimately be drawn from these figures: (1) The sugar that was frequently present in the urine passed first thing in the morning, although it was absent from the specimen passed last thing at night, long after the last meal, could not be termed "alimentary" or "exercise" glycosuria. (2) In the investigation of functional glycosuria 24-hour specimens of urine are almost valueless. (3) Sugar is most likely to be found in the urine passed in the evening, first thing in the morning, and after a meal at which sweet things are eaten, and least likely to be found after breakfast or after lunch. (4) The "glycosuria of pregnancy" is probably not often due to lactose, but is merely an exaggeration of a normal symptom. It might possibly be expected more often in women under, rather than over, 25 years of age.

THE ALBUMINURIA OF PREGNANCY

Although no figures relating to women early in pregnancy are available it is not likely that many obstetricians will consider that at 24 weeks the figure of 1 per cent. is too low, while most will consider it much too high. In my view albuminuria at this stage of pregnancy is presumptive evidence of nephritis. If we compare this 1 per cent. with the incidence of albuminuria in healthy women, as set out above, it is evident that so far from it being necessary to postulate some unknown toxin as the cause of the albuminuria of pregnancy it becomes necessary to explain why the incidence of albuminuria is so low during the early months of gestation. I have frequently discovered albumin in clinical amounts in the urines of women attending the post-natal clinic (six weeks to three months after delivery), although none was discovered during pregnancy. Sylvest [3] reports the case of a woman who suffered from orthostatic albuminuria who always passed an albumin-free urine whenever she became pregnant.

Miss G. H. Dodds, of the University College Obstetric Hospital, has kindly permitted me to refer to the thorough records she has made of the subsequent histories of a number of women who suffered from the albuminuria of pregnancy, which she intends to publish shortly. A certain number of these women continued to pass albumin in the urine for several months after delivery until they again became pregnant. The albumin then disappeared from the urine to reappear in some cases during the latter weeks of pregnancy.

SUMMARY

1. Albumin was found in clinical amounts in the urine from: 26 out of 110 college girls, or 23·6 per cent.; 843 out of 5042 post office girls, or 16·7 per cent.; 75 out of 912 charwomen over 25 years of age, or 8·2 per cent.; while only 10 out of 22 women medical students consistently passed urines, either free from, or containing less than a trace of albumin.

2. In the majority of morning specimens examined not a single cast was seen, and on no occasion was more than one granular cast observed.

3. The incidence of albuminuria would not appear to be related to the age of onset of menstruation.

4. Sugar was not detected in clinical amounts in any sample of urine, but was most frequently found in small amounts in the urine passed first thing in the morning or in the evening, and least often found in that passed after breakfast or lunch.

5. Twenty-four hour samples of urine are useless for investigating glycosuria or albuminuria, and in the investigation of a case of non-nephritic albuminuria the sample of least value is that passed on rising.

6. Not only is the incidence of albuminuria during the sixth month of pregnancy so low as to demand an explanation, but an existing non-nephritic albuminuria tends to clear up during the early months of pregnancy.

I wish to take this opportunity of thanking most sincerely all those ladies who collaborated in this investigation. My thanks are also due to Dr. H. P. Gilding and Miss G. H. Dodds, through whom I was able to approach the women medical students at University College and University College Hospital.

REFERENCES

1. Leube, W. von: Virchows Archiv, 1878, lxxii., 145.
2. Bashford, H. H.: THE LANCET, 1926, ii., 1305.
3. Sylvest, E.: Ugeskrift for Laeger, 1922, lxxxiv., 563.

DONCASTER INFIRMARY "CHRISTMAS DRAW."—This annual "draw" has been forbidden by the chief constable of Doncaster, acting upon instructions from the Home Office. Last year £400 was raised in this way, and it was hoped that this Christmas the amount would reach £500. More than 40,000 threepenny tickets had been sold. The money will have to be returned to their holders, and the infirmary will lose the £50 expended upon printing and distribution. Mr. A. A. Bell, chairman of the board of management, states that the hospital is faced with the possibility of having to close wards with a waiting-list of 900. Mr. Bell points out that, while the hospital is debarred, clubs in Doncaster are allowed to organise sweepstakes.

CLINICAL AND LABORATORY NOTES

DIAGNOSIS OF DISSEMINATED SCLEROSIS

BY GRAPHIC REGISTRATION AND FILM TRACKS

BY F. JANVRIN

ASSISTANT IN THE SPEECH DEPARTMENT, WEST END HOSPITAL FOR NERVOUS DISEASES, LONDON

AND

C. WORSTER-DROUGHT, M.D. CAMB.

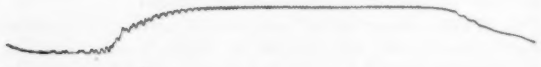
PHYSICIAN TO THE WEST END HOSPITAL AND TO THE METROPOLITAN HOSPITAL

Two methods of registering speech may be used in the diagnosis of nervous diseases. These may be illustrated by their application to a typical case of disseminated sclerosis.

A. B., female, aged 32. Three years ago she noticed weakness of the left leg. Her hands also became weak and she could not use her typewriter; the left hand was weaker than the right. Shortly afterwards the patient noticed that her speech had become slow and difficult; she was obliged to speak over-precisely. Examination showed: nystagmus; slight intention tremor; absent abdominal reflexes; knee- and ankle-jerks exaggerated; and both plantars extensor. The blood and cerebro-spinal fluid yielded negative Wassermann reactions, but the latter showed a Lange curve of the paretic type.

With the graphic method the patient speaks into a mouthpiece placed lightly over the mouth. The impulses of air are conducted through a wide tube to an oil-silk membrane the movements of which are enlarged by a straw lever and registered by a fine steel point on a moving surface of smoked paper. Some registrations of the vowel *ah* spoken by A. B. are reproduced in Fig. 1. Each small wave in the

FIG. 1



Inscription of the vowel *ah* spoken by a patient with disseminated sclerosis (nearly twice natural size).

curves is the registration of a puff from the glottis in producing the tone of the voice. In normal curves these are always regular. The regularity is evidence that the laryngeal muscles are normally coördinated. Irregularity is evidence of incoördination or ataxia. The irregularities of the waves in Fig. 1 are therefore registrations of the laryngeal ataxia of the patient.

The patient was taken to a film studio and a sound track of her speech was made. Fig. 2 reproduces portions of her sound tracks for the vowel *ah*. The ataxic irregularities are evident.

The graphic method has the advantage of comparative cheapness of equipment and ease of manipulation; the entire recording equipment can be placed in a hand bag and carried about. The film method has the advantage that the receiving microphone can be used anywhere—even without the knowledge of the patient. It would be possible to connect up a microphone beside the bed of a patient in a hospital with a more or less distant central registering station. In practice, owing to the expense of the film method, some such arrangement would probably be necessary.

Graphic registrations of speech from cases that were definitely diagnosed as disseminated sclerosis have almost invariably shown ataxia curves. On the basis of a large number of cases we can assume that all cases of this disease, apart from those with a purely spinal cord localisation, will reveal themselves by the presence of ataxia waves in the registration. The cases studied have been almost exclusively milder ones in which no alteration of the voice could be detected by the ear, even by the most attentive listening. The test is therefore ultra-acoustic.

All diseases and lesions producing laryngeal ataxia register in the same way. Among these are Friedreich's

FIG. 2

Film track of vowel *ah* spoken by a patient with disseminated sclerosis.

ataxia, cerebellar tumour, polyneuritis, general paralysis of the insane, &c. No ataxia waves occur or can occur in diseases not producing laryngeal ataxia. A single record is often sufficient to distinguish a case of disseminated sclerosis from one of hysteria.

The laryngeal ataxia is a condition similar to that shown by the finger-nose test, that is, it is an intention tremor. The movements are uncoördinated until the organ finds a position of rest. Nystagmus is of a similar nature, the point of rest being the object looked at. The fact that the ataxia waves frequently occur even in the milder cases suggests that the failure to detect intention tremor in the finger-nose test and by nystagmus is a result of relative coarseness of the method of observation.

Note.—The first records made of disseminated sclerosis by the graphic method were made by Dr. E. W. Scripture, professor of experimental phonetics in the University of Vienna, and published in *Brain*, 1916, xxxix., 455.

A CASE OF FIBROMA OF STOMACH

BY A. BASIL ROOKE, F.R.C.S. ENG.

SURGEON TO THE ROYAL VICTORIA AND WEST HANTS HOSPITAL, BOURNEMOUTH

A SINGLE woman, 59 years of age, complained of epigastric pain and flatulence which had been increasing in severity during the last nine months. The pain was of a colicky nature and had no apparent relationship to food. The attacks of pain had, on several occasions, been associated with vomiting. They were always accompanied by headache and nausea. There was no history of hæmatemesis or melæna. The patient had lost a stone in weight during the last year.

The uterus had been removed for fibroids about 20 years ago and a few years later two "fibrous tumours" had been removed from the left thigh.

On examination there was increased resistance over the upper part of the right rectus and pain was produced by deep pressure over the region of the

gall-bladder. On percussion the stomach appeared to be of normal size. Cholecystographic examination was negative for gall-stones.

At laparotomy the gall-bladder was found to be normal. On examination of the stomach a hard lump, the size of a walnut, was felt. It was situated at the middle of the lesser curvature and extended into the posterior wall of the stomach. It was so freely movable that it could easily be pushed against the pylorus. The anterior wall of the stomach was incised and the part of the posterior wall which contained the tumour was pushed through the opening. The mucous membrane was freely movable over the tumour, which was not pedunculated. The tumour, which lay in the submucous coat, shelled out readily. It was attached in the region of the small curvature by a vascular leash. The bed of the tumour was covered in and the wound in the anterior wall of the stomach was closed in the usual way.

The pathologist reports on the specimen as follows: "Section shows the tumour to consist entirely of spindle cells with elongated oval nuclei and very little interstitial tissue. The cells are arranged in irregular bundles interlacing with each other. In my opinion it is a soft fibroma."

MEDICAL SOCIETIES

ROYAL SOCIETY OF MEDICINE

SECTION OF OBSTETRICS AND GYNÆCOLOGY

AT a meeting of this section, held on Dec. 16th, with Mr. J. P. HEDLEY, the President, in the chair, Dr. W. H. F. OXLEY opened a discussion on

Maternal Mortality and Morbidity

Since 1911, said Dr. Oxley, the general death-rate in this country had fallen from 14 to 11 per 1000; the infantile mortality-rate had fallen from 109 to 65 per 1000; but the maternal death-rate had remained stationary at 4 per 1000. Public interest had been aroused and a Departmental Committee of the Ministry of Health, composed exclusively of members of the medical profession, had been appointed in 1928 to advise on the matter. Data, obtained from those who had actually attended fatal cases, were passed on to the Committee by the medical officers of health in the areas concerned. Altogether nearly 6000 deaths were investigated, and the treatment received by the patient in each case was assessed against a reasonable standard of midwifery practice drawn up by the Committee. In cases where failure to reach this standard in some particular had been the starting point in the train of events which led to death, the Committee had considered a primary avoidable factor to have been present. Such cases amounted to 45·8 per cent. of the relevant cases, and the Committee believed that there would have been more if full information had been available in every case. Errors of judgment on the part of doctor or midwife were sometimes due to lack of trained help, to the necessity for conducting difficult labours in unsuitable surroundings, and to anxiety and interference on the part of friends and relatives of the patient. In most cases the medical attendant did not lack knowledge, but his training had been insufficient to give him a firm obstetrical conscience. The Committee agreed that there were three main causes underlying the maternal death-rate: (1) want of sound training of doctors and midwives; (2) failure of the patient to take advantages of the facilities available for her care; and (3) the adverse circumstances under which domiciliary midwifery was conducted. In their interim report the Committee had proposed an extension of existing provisions into a coördinated maternity service; the Government had adopted this proposal in principle, but the financial crisis had prevented any further advance. In the final report recommendations for improvement of the existing service had been made. Sepsis was responsible for more deaths than any other single factor, and the Committee advised a stricter antiseptic toilet of the patient, and the provision of a mobile unit of bacteriologists for the investigation of cases of puerperal sepsis. Inquiries in Holland, Denmark, and Sweden, where the maternal death-rate was lower than ours, showed that, except in Holland, the methods of certification were not comparable with those used in this country. The standard of health of women appeared to be higher in those countries than in England and Wales, and in many respects their maternity services appeared to be better. The status of midwives was high and their training schools few. Doctors were taught to send all but the simplest abnormalities into hospital, consequently there were no failed forceps cases. The report had crystallized much which had been doubtful as to the actual practice of midwifery in this country, and many of the Committee's proposals were now in process of adoption.

CRITICISMS OF THE REPORT

Prof. F. J. BROWNE said that criticisms of the report had been received from certain responsible quarters. It had been said that the principle of six months' training in obstetrics and gynæcology, proposed by the Committee for medical students and adopted by the General Medical Council on Nov. 24th of this year, was unnecessary, because it was impossible to turn an undergraduate into an expert obstetrician. The necessary experience could only be acquired during an internship after graduation. Those who offered this criticism held that a man should receive his degree on passing the final examination, but that his name should not be put on the register until he had done a year's internship in medicine, surgery, and midwifery, during which time he would receive board and residence but no salary. In the United States a man had to complete an internship before he was allowed to practise midwifery, but the maternal mortality-rate there was 8·3 per 1000; in Holland, where the maternal mortality-rate was only 2·98, there was no compulsory internship. Prof. Browne felt that the Committee had adopted a wise course in advocating a thorough undergraduate training in obstetrics. Men and women with specialised training in obstetrics and gynæcology were scarce in this country, and there were whole counties without an expert obstetrician. In many large provincial hospitals gynæcology was monopolised by the general surgeon, who did not practise midwifery and whose sole remedy in an obstetric emergency was Cæsarean section. The results were often disastrous. Opportunities must be made for young men with specialised obstetric training to establish themselves in provincial non-teaching centres by opening positions for them on hospital staffs. The section on the prevention of

sepsis was probably the most important part of the report. Labour should be conducted as far as possible like a surgical operation, and full use should be made of antiseptics, gloves, and masks.

TERRIFYING PROPAGANDA

Prof. GILBERT STRACHAN again drew attention to the fact that sepsis was responsible for a larger number of deaths than any other single factor in the cases investigated by the Committee. In half the cases sepsis occurred in women who were delivered spontaneously, and he was glad that this fact had received recognition. He thought that shock was a more important cause of death than hæmorrhage. The criteria of a reasonable standard of midwifery, as adopted by the Committee, represented a complete antenatal, natal, and postnatal service; it was not remarkable that at least half the cases did not come up to it. Care was essential in choosing propaganda to educate public opinion. Terrifying propaganda might deter the potential mother from embarking on pregnancy, and it was, perhaps, a pity that the report had received quite so much publicity in the lay press. It had encouraged lack of confidence in the medical attendant. Slight pelvic contraction was hardly mentioned in the report, though it gave rise to some of the most serious of obstetric problems. The maternal death-rate in England and Wales was by no means the highest in the world; it was exceeded by the rates in Germany and the United States. In Holland the numbers of midwives were regulated according to requirements, and it was not usual for nurses with general training to become midwives—a custom which raised a serious problem in this country. Material was wasted in training nurses who never intended to practise midwifery. Medical students should be impressed with two obstetrical principles: non-interference, and the importance of an obstetrical conscience.

ANÆSTHETICS IN LABOUR

Dame LOUISE MCILROY agreed that the report had encouraged fear among expectant mothers, and that it had shaken the confidence of the public in the profession. Everyone could look back on a case and say: "It would have been better if I had done so and so," and in that sense all errors were preventable. How could a doctor, working in a bad light with no trained help, and probably harassed by the patient's relatives, hope to exercise cool judgment? Dame Louise quoted the statement in the report that anæsthetics were rarely given in Holland, and said that conclusions drawn from this statement were likely to put the clock back in the development of anæsthesia in midwifery. At the Royal Free Hospital nearly every patient received an anæsthetic, and the maternal mortality-rate during ten years had been 2·8 per 1000. She thought the hospitals might undertake to send a trained assistant to help local practitioners, by giving an anæsthetic or in other ways. Some hospital provision ought to be made for the patient of moderate means.

Dr. LETITIA FAIRFIELD said that the London County Council supervised over 10,000 maternity cases every year. They found it difficult to keep the mothers away from the antenatal clinics until they had room to take them. Many cases of slight disproportion were diagnosed at the clinics. Failed forceps cases formed only a small proportion of the cases admitted to hospital; the midwifery of general practitioners in London appeared to be good on the whole. It was deplorable lack of organisation that so many cases should be used for the training of nurses who never intended to practise midwifery. A special experiment in the use of anæsthetics in midwifery was being carried out in the Council's hospitals at the present time, and so far it had been found: (1) that anæsthetics hastened, rather than delayed, delivery; (2) that their use diminished the incidence of perineal tears; and (3) that there had been no evidence to establish the view that anæsthetics increased hæmorrhage.

Dr. T. J. HOLLINS said that on coming to London he had wished to study the work of an antenatal clinic; he had applied at a hospital, and had been told he would not be allowed to attend. If the doors of the clinics were to be closed to general practitioners we could not hope for much improvement in midwifery technique.

Mr. MCKIM MCCULLAGH said that the true index of efficiency was the stillbirth-rate. In 1930 this reached 27,577. He was strongly in favour of terrifying propaganda if it helped forward the work.

Mrs. F. IVENS-KNOWLES agreed that obstetric cases should be treated on surgical lines. Maternal morbidity led to much crippling and deserved as much attention as maternal mortality. Good midwifery was expensive; the cost per case in a small maternity home in Liverpool, where the mortality-rate was very low, had been just double that in a neighbouring maternity hospital.

Dr. LEONARD COLEBROOK emphasised the importance of masks. Antiseptics, as used at present, he said, were futile. The student should be taught to develop a soap-and-water conscience. The Committee had recommended the use of iodine tentatively because it left the skin uninfective for some time, but it caused dermatitis in a small percentage of cases.

Dr. R. KELSON FORD said that if the mooted system of internships following graduation was developed, some men might have to wait years before they got through their appointments. There were not sufficient posts to go round. His experience in the provinces had been that patients attended readily and regularly at antenatal clinics. Rickety children were more liable to infection than their fellows, and might not the patient with a rickety pelvis be more susceptible to infection than her normal sister? It was possible that masks might become a fetish; he had found hæmolytic streptococci in the blood of a patient before labour. If too much importance was attached to masks research might be hindered.

BRITISH INSTITUTE OF RADIOLOGY

ANNUAL CONGRESS IN LONDON

(*Concluded from p. 1334*)

Late Effects of X Rays

On Thursday afternoon the chair was taken by Dr. STANLEY MELVILLE, and Dr. N. S. FINZI spoke on Late X Ray Effects. He said he would limit his remarks to conditions appearing more than six months after the beginning of exposure. They were very rare, and should never result from diagnostic doses unless the patient concealed from the radiologist the fact that he had been radiated a few days before. Telangiectases appeared from one to three years after treatment, after X rays more often that after gamma rays; after about five years the disorder tended to disappear. After a severe reaction patchy pigmentation might persist, alternating with patches of scar tissue and telangiectasis. Papery atrophy and thickening of the skin were also seen. Neoplasms were less likely after a single acute burn than after small repeated doses. Late ulcerations only followed

telangiectases or atrophy; they started acutely, often with a small patch of thrombosis, after an exciting trauma or bacterial invasion such as impetigo. They might start as long as 11 years after irradiation. Cracks appeared mostly in chronic cases; they also occurred as longitudinal splits in the nails. In the subcutaneous tissues there might be acute inflammation, starting with rigors perhaps and even going on to ulceration if fomentations were used. Œdema could appear without any skin change. Thickening of the subcutaneous tissues might follow heavy doses, and muscle might become fibrosed, especially if it had been cut into. Heavy treatment devitalised the bone so that a subsequent fracture would not unite. Necrosis might supervene if there was an infective focus. It might affect cartilage, or there might be perichondritis. Mucous membrane ulcerations were seen. The lung might show a peculiar condition of reaction in areas of previous or subsequent disease.

Some of the effects were entirely due to rays; others needed an exciting cause as well. Ultra-violet radiations applied at the same time as X rays had a deleterious effect, and might be a predisposing cause to damage from X rays applied months later. The liability to skin damage from sunlight, especially in fair people, must be remembered; there was a special tendency to damage among dwellers in Australia and South Africa. No words of condemnation were too strong for the treatment of any ray damage or radiated case by ultra-violet or infra-red rays. Skin and lung trouble were precipitated by infection. Infected teeth should be removed before any part of the face was treated radiologically.

Acute inflammation and thrombosis and early stages of ulcer were treated by complete rest, protection from trauma by wrapping in cotton-wool, and even immobilisation in plaster. Irritants and hot fomentations were disastrous. Vaccines might be rapidly successful in the early stages and useful later. For ulcer, calamine liniment, 5 per cent. anæsthesine or cycloform in vaseline and percanol ointment were useful. Weak ionisation with zinc ions was valuable. Isotonic or hypertonic saline at blood heat was a good dressing. Scarlet red, 3 per cent. in vaseline, would accelerate the growth of epithelium. For a late ulcer, surgical treatment must always be considered. Many cases healed and remained well for years after medical treatment only. Chronic radiodermatitis with cracks, malignant change, or chronic pain should call for surgical treatment at once. Mild telangiectases could be removed by sparking or electrolysis. Cracks in the fingers or nails could be cured by cellulose or Durofix—a cheap and useful application. Warts could often be pared or rubbed down with emery paper or the side of a match box. When troublesome they must be excised. Epitheliomata should be removed with the diathermy knife; they metastasised late. Thickening of the skin, subcutaneous tissues, muscle and submucous tissues contra-indicated operation, as healing was unsatisfactory. Any source of infection must be removed before irradiation of bones; the failure to unite precluded surgical treatment. The X ray effect on the lung should be treated as a bronchiectasis.

The reason for bringing these rare conditions forward was to indicate the great success of treatment.

PLASTIC SURGERY

Mr. A. H. McINDOE read a paper by himself and Sir HAROLD GILLIES on plastic surgery in chronic radiodermatitis and radionecrosis. He said that chronic ulcerative radiodermatitis, once established, admitted of one treatment only: complete excision, which was followed by rapid relief of symptoms and freedom from the risk of carcinomatous change. The problem of the immediate replacement of the excised tissue with healthy skin brought the condition at once within the purview of the plastic surgeon. His patients fell naturally into three groups: (*a*) those who had received a single dose, not always an excessive one; (*b*) those who had received small but oft-repeated doses for a long period, with characteristically chronic dermatitis progressing slowly to sluggish necrosis, often resulting in ulceration; (*c*) professional workers with burns of the hands and face. The skin changes were chronic from the outset. No cancer had been found in the first group, but it was common in the third group and not uncommon in the second. The effects were attributable to two essential processes: vascular obliterative changes in the vessels and loss of function of the cells in the irradiated area. In the acute stages the lesion consisted of a central slough surrounded by an extensive zone of inflamed skin, and no line of demarcation between healthy and devitalised tissue existed. Therefore too early excision and grafting was hazardous.

The chronic form of the disease might follow the acute stage or be chronic from the outset. The ulcer was indolent and covered with crusts, completely incapable of regeneration. Fixation to deeper structures was not uncommon, and the skin surrounding the ulcer for a considerable distance was converted into a pachydermatous rind, apparently lifeless, devoid of hair and natural secretions, and disfigured by areas of keratosis and telangiectasis. The final phase usually occurred years after exposure to the rays had ceased. The distinguishing surgical feature of chronic radiodermatitis was that the whole area could easily be dissected up from the subjacent tissues. Conservative treatment was hopeless and adequate excision of all devitalised tissues was essential. The indications for operation were: (1) pain, itching, ulceration, and discharge; (2) deformity from contraction; (3) unpleasant and disfiguring appearance; and (4) epitheliomatous change.

The excised tissue should always be examined microscopically. In the vast majority of cases excision and repair were carried out at one operation. If the rind-like superficial tissues were pulled on, a cleavage plane was easily established, and the excision could be extended into healthy tissue on all sides. If there was a suspicion of epithelioma the diathermy knife should be used. There were three kinds of grafting. Thick razor-grafts were useful for covering a raw area and the results were very satisfactory for the hands and fingers, scalp, back, and eyelids. They were less desirable where a thick covering was needed for weight-bearing or pressure. Full-thickness dissected grafts had not proved as reliable as razor-grafts. Pedicle flaps were particularly applicable where much tissue had been lost, where appearance was important, and where a mobile covering was required for exposed structures—e.g., cheek, neck, and limbs, and especially over joints. A successful repair with thick razor-grafts or flaps could be more confidently predicted in radiodermatitis than after burns by fire.

The CHAIRMAN said he had long realised the danger of treating ray damage by "a hair of the dog." He strongly advocated percanol and Desitin. The latter was a pure cod-liver oil preparation and was especially valuable for cracks.

Dr. DOUGLAS WEBSTER emphasised the rarity of these conditions, saying that he had only seen three or four cases after 40,000 X ray and 5000 radium treatments. He thought that practically

all the cases were due to overdosage. There was no such thing as idiosyncrasy, but patients with psoriasis, exophthalmic goitre and polycythæmia, and children with tuberculosis, had very sensitive skins.

Dr. G. B. BATTEN agreed on the value of desitin ointment, and said that they had seen that afternoon at the demonstration a very large percentage of all the cases of late X ray and radium damage in the country. An 8 per cent. overdose would not produce dermatitis and 10 per cent. was not likely to, but 12 per cent. was very likely to do so.

Dr. LEO ROWDEN said that he had only seen three or four cases of mishap in a series of 600 cases. The lesions should not be treated with strong applications; he used ½ per cent. red lotion.

Mr. P. P. COLE said that he could not agree that the majority of the cases in London were to be seen at the demonstration that day. Sir Harold Gillies was fortunate in getting his cases early; the surgeon was usually called in when epithelioma had developed or the tissues were too badly damaged for treatment. He asked what proportion of the cases did become malignant. Any ulcer in this connexion was, he said, definitely precancerous. He condemned the two-stage operation and urged the use of the diathermy knife. The temptation of the surgeon was not to remove enough of the surrounding tissue.

Dr. R. CONNELL said that it had been stated that the sensitivity of the skin to X rays could be diminished by previous applications of ultra-violet light; it would be interesting to hear if any radiologists had tried this technique. Only an epilation dose was of any use for sycosis; apparently this, when combined with ultra-violet light, might be a very dangerous treatment.

Dr. ROWDEN said that chronic late ulcers, even if malignant, hardly ever metastasised; they were more of the type of rodent ulcer.

Dr. HOPE FULLER said that in Edinburgh lupus was treated surgically, and therefore late X ray effects were not seen.

Fractures of the Upper End of the Femur in the Aged

Dr. J. N. JACOBSON said that it had been customary since Astley Cooper's time to regard intracapsular fracture as a common injury of old age and extracapsular fracture as occurring usually in healthy, vigorous adults. As age advanced the angle of the neck with the shaft of the femur decreased, the maximum intensity of the change being in the thin part of the neck, which constituted a point of least resistance where fractures should logically be expected to occur in the aged. He had investigated 80 fractures of the upper end of the femur in persons over seventy in a mental hospital. Those injuries constituted 54 per cent. of all fractures occurring during that period. Only 14 of them were truly through the neck, and, therefore, intracapsular; 65 had been intertrochanteric—i.e., extracapsular. The commonest site in this series was through the strongest part of the bone. He had seen the falls of two of the patients who had had fractures of this kind: one had slipped while pushing himself up from a low armchair by pressing on the arms; the left foot had remained on the floor and the right had slid behind it towards the left—i.e., in adduction. The second patient had caught his left foot in an obstruction while walking slowly; he had dragged the foot free, but had lost his balance as it slid forwards to the right on the polished floor. In neither case was there violence to the hip. The first man had slid slowly to the floor and the second had fallen on the low bed. Records of other falls in the series also showed a lack of any direct violence, and Dr. Jacobson demonstrated by a simple proposition in mechanics that when the leg was in adduction, the neck more or less in line with the body, and the foot fixed, the weight of the falling body would exert its greatest force at the angle. He thought that this explanation accounted for the high incidence of fractures at an apparently strong part of the bone. Were violence to the trochanter an important feature, fracture of the acetabulum would not be so rare. He showed skiagrams of fractures which could, he thought, only be explained on a hypothesis of a bending or bursting movement.

The mechanism of the "stumble" fracture of the neck appeared to be an axial torsion: a sudden obstruction to normal progress tended to throw the limb forward and at the same time internally rotate the femur. In this case the femur broke at its weakest point. General defectiveness of the neuromuscular mechanism might contribute to the production of these fractures in the aged. A large number of fractures in the trochanteric region were intracapsular in front and extracapsular behind, as shown by a number of skiagrams of injected joints.

He offered a new classification of fractures of the upper end of the femur:—

(1) *Subcapital*, where the fracture passed through the line of junction of the head and neck, detaching the head of the femur so that it lay in the acetabular cavity; the lower fragment was drawn upwards, externally rotated and adducted. There was no impaction, and the fracture was purely intracapsular.

(2) *Transcervical*, through the neck of the femur at its narrowest part; the fracture line was serrated and the lower fragment was pulled upwards, externally rotated and adducted. This was a purely intracapsular fracture with little or no impaction.

(3) *Trochanteric:* the great majority. The fracture line ran downwards and inwards towards the lesser trochanter and the upper fragment consisted of the head, neck, and a variable amount of the great trochanter. The lower fragment, when impaction was slight, consisted of the lower part of the trochanter, the lesser trochanter, and the shaft, but when there was much impaction the V-shaped wedge of the upper fragment tended to wedge out the lesser trochanter from the lower fragment. Even if the fracture ran through the lower part of the lower trochanter it involved the hip-joint and became intracapsular on its inner part. There was usually synovitis of the homolateral knee.

(4) *Subtrochanteric:* really a fracture of the shaft proper, involving the lower part of the great trochanter.

(5) "*Avulsion*" fractures of the great trochanter, probably due to spasmodic muscular action.

The degree of shortening in the first three varieties gave no diagnostic help.

Dr. G. F. STEBBING saw no need for the division into subcapsular and transcervical, and suggested that there was often a double injury; impaction occurring at the time of the original trauma and disimpaction when the patient fell. These fractures would unite if they were kept in approximation and held there; the trouble was that the upper fragment was the whole body and the lower fragment was the whole lower limb.

Carpal Injuries

Dr. E. ROHAN WILLIAMS read a paper on the X Ray Investigation of Carpal Injuries. The responsibilities of diagnosis were largely thrown, he said, on the radiologist. Unfortunately minor carpal injuries were apt to be overlooked in the presence of more severe damage in the neighbourhood. If from the routine lateral and antero-posterior views carpal injury appeared probable, a further routine radiogram of both hands should be taken in the "scaphoid" position: the hands in ulnar abduction with elevation on the radial side. This threw the

scaphoid clear of other shadows and projected its tuberosity clear of the rest of the bone. Occasionally a dorsal or oblique film might be of value. The only three supernumerary bones of importance were supernumerary trapezoid, the commonest; os centrale, usually appearing as a smooth, circular indentation of the os magnum; and the os triangulare, seen as a flat bone-flake. The scaphoid was injured in a high proportion of carpal injuries—about 80 or 85 per cent. The cuneiform and semilunar were broken in rather less than 20 per cent. There were three types of scaphoid fracture: (1) waist fracture, the commonest; (2) avulsion of the tuberosity, rare; and (3) separation of the ulnar part.

Serious disability followed an untreated fracture. Union was to be expected in every case if adequate treatment was given. In no region was immobilisation more important. The ulnar side became almost avascular after fracture and union depended on a fine leash of new vessels, which was easily torn. Functional activity, however, was equally essential. The problem had been solved by Böhler's non-padded dorsal plaster cast, with which 100 per cent. bony union could be obtained.

The semilunar was more often dislocated than broken; diagnosis of subluxation depended on overlap by unciform and cuneiform as well as by the os magnum in anterior view, and a varying angle between the surfaces in lateral view. Fractures might be fissure or compression. Pain and disability did not appear until some time after the injury. Cuneiforms were usually injured on the dorsal surface, as the lateral radiogram revealed. Most dorsal flake-fractures of the carpus came from the cuneiform. Other fractures were rare. The pisiform might be anatomically double.

REVIEWS AND NOTICES OF BOOKS

Principles and Practice of Otology

By F. W. WATKYN-THOMAS, F.R.C.S., B.Ch.Cantab., Surgeon, Central London Throat and Ear Hospital; and A. LOWNDES YATES, *M.C.*, M.D. Lond., F.R.C.S. Edin., Assistant Surgeon, Ear and Throat Department, Prince of Wales's Hospital and Central London Throat and Ear Hospital. London: H. K. Lewis and Co., Ltd. 1932. Pp. 555. 25*s*.

IN this joint production Mr. Watkyn-Thomas has been responsible for the chapters on anatomy, the ear and balance, and acute inflammatory conditions, and for the final chapters on vertigo, foreign bodies, injuries, and new growths; while Mr. Lowndes Yates writes on hearing and tests of hearing, deafness, and chronic suppuration and chronic mastoiditis.

The functions and the methods of testing the labyrinth are described in a particularly interesting way. The chapter on the tests of hearing breaks new ground, for it embodies the report of the committee appointed by the section of otology of the Royal Society of Medicine, for the consideration of hearing tests, of which committee both authors were members. A recommendation of this committee was the general adoption of calibrated tuning-forks marked with the "half-intensity period," or the time in which the amplitude of vibration falls to one-half (*a*) in air, and (*b*) when testing bone-conduction, and (*c*) the relative intensity of the sound emitted by the prongs and the base of the fork; the results of tests with a series of these forks are recorded on a chart or "audiograph." The understanding of the use of the audiograph demands very close study, and it is therefore a great pity that it is not described more clearly by the committee or in this book. Thus, Column D is said to record the diminution of the patient's hearing *distance*, and to refer to bone-conduction, but it is not explained how distance can vary when bone-conduction is tested; again, it is stated that the vertical lines on the graph indicate the intensity of sound, whereas it is the horizontal lines which appear to do this, and there is no explanation of the irregular and apparently arbitrary spacing of these lines. The method, as a new and somewhat intricate one, must be set forth very clearly if it is to gain general adoption. Deafness is classified in a rather unusual manner, as obstructive, conductive, periotic, perceptive, and uncompensated; the last term is used for those patients who can hear the sound of the voice but cannot distinguish the words spoken, and Mr. Lowndes Yates lays stress on the importance of re-education in this class of patient. Periotic deafness includes the condition usually known as otosclerosis, and a "membranous" form in which fibrosis resulting from inflammation has invaded the fenestræ. The remaining chapters, which deal principally with acute and chronic suppuration and their complications, follow more usual lines, but the mastoid operations are not described clearly enough to help the surgeon who had not previously performed them. Heath's operation is mentioned in the index, but does not appear on the page referred to. Labyrinthitis and the intracranial complications are well described.

For the treatment of the common form of deafness resulting from middle-ear catarrh, Mr. Lowndes Yates recommends aspiration of the Eustachian tube by means of a tympanic tube passed through the catheter, and states that no treatment will be successful if we attempt repeated inflations until the Eustachian tube is free from infection; he does not admit that the tympanum and Eustachian tube are frequently both infected together, nor does he acknowledge that good has often resulted from inflation in these conditions. For adhesions, shortening or stretching of the tensor tympani, and for "membranous" periotic deafness, he advises filling the meatus with an artificial wax composed of spermaceti, yellow wax, and lanolin; this is renewed weekly for weeks or months, but he does not tell the inexperienced how much to use, nor how to apply and remove the plug. For the after-treatment of acute otitis, we are referred to the general principles laid down in Chapter XX., though the book contains only 17 chapters. Misprints are indeed rather frequent, the most noticeable being that the description of ligature of the internal jugular vein, which seems to be recommended in all cases of thrombosis of the lateral sinus, bears the heading of Ligature of the External Jugular Vein. The book is provocative. The authors take a different view of certain subjects from the majority of their colleagues, and their work will be the more interesting to otologists.

The Human Body and its Functions

By C. H. BEST, M.D., D.Sc. Lond.; and N. B. TAYLOR, M.D., F.R.C.S. Edin. Toronto: W. J. Gage and Co., Ltd. 1932. Pp. 417.

THIS elementary text-book was in its original form a course of lectures given to public health nurses and students of household science and occupational therapy in the University of Toronto, where the

authors both hold chairs in physiology. The lectures have now been expanded and arranged in a well-planned volume whose perusal will be useful to a larger and more advanced circle of readers. The functions and composition of the blood and its circulation, the physiology of breathing, the influence of muscular exercises, the digestion and absorption of food with the general principles of metabolism, and the nervous mechanism are explained in simple terms in a series of chapters conforming to the usual arrangement of every text-book of physiology. But of particular value in this small book are the apposite illustrations and the direct method in which familiar descriptions are associated with technical information. Human physiology can be made of interest to persons in callings other than those where the technical knowledge of the subject is essential, and to-day the layman is not well informed if he remains entirely ignorant of recent advances. To meet his needs the book has been written as far as possible in a colloquial way, but the explanation of scientific terms is accurate.

Practical Anatomy

A Companion to Manuals of Practical Anatomy. Third edition. By E. B. JAMIESON, M.D., Senior Demonstrator and Lecturer on Anatomy in the University of Edinburgh. London: Humphrey Milford, Oxford University Press. 1932. Pp. 654. 12*s.* 6*d.*

IN this the third edition the author has "drastically revised" the original text and has rewritten whole sections. Among these he enumerates the perineum, heart and pericardium, fœtal circulation, and central nervous system. We have gone through these sections with particular care and have found them excellent; in fact, we have little hesitation in saying that this small book contains one of the best summaries of descriptive anatomy with which we are acquainted. The section on development might be brought more up to date in some ways, but this is a small matter when weighed with the rest of the book. It is an admirable production, which will see many more well-deserved editions.

Allen's Commercial Organic Analysis

Fifth edition. Vol. IX. By five contributors under the editorship of C. A. MITCHELL, M.A., D.Sc., F.I.C. London: J. and A. Churchill. 1932. Pp. 617. 32*s.*

THE issue of a new volume of "Allen" is an event of importance in the world of analytical chemists. The advances made during the 15 years since the corresponding volume of the previous edition was published have necessitated a complete revision and the inclusion of much new material. In spite of the deletion of part of the subject matter the size of Vol. IX. is increased by 113 pages, and the fifth edition will include ten instead of nine volumes.

The contents are divided into five sections, the first on the Proteins of Plants, by Dr. D. Jordan Lloyd, being an accurate summary of our knowledge relating to the portions of plants used as food in this and other countries. Naturally the wheat plant receives fuller attention than other cereal foods, and the detail in which this is studied is indicated by the 19 separate estimations of its different constituents. The Proteins of Milk, by Mr. G. D. Elston, is a lucid account of the isolation, properties, uses, and estimations of the nitrogenous constituents of the milk of various animals, of which casein is dealt with in the greatest detail. The section on Milk, revised by Prof. J. Golding, provides, apart from descriptions of analytical procedures and chemistry, a useful collection of varied information on grading, sterilisation, and adulteration, together with various factors influencing the composition of milk. Closely related to this previous section is that on Milk Products, revised by Mr. E. R. Bolton, F.I.C., which provides a detailed summary of the manufacture, uses, and analysis of cream and its substitutes, condensed, treated, fermented, and dried milks, and a wide variety of cheeses. In this section will be found matter of interest to the layman and to those interested in dietetics, and the analytical methods described are well selected and reliable. The final section occupies the latter half of the volume and is devoted to meat and its products, poultry, eggs, and fish. The author, Dr. C. R. Moulton, has covered a wide field in considerable detail, and the article is an important and valuable compilation, but contains redundant tables of analytical data, some of which were first published over 60 years ago.

Probably no other work in the English language contains so many data on the subjects dealt with. Further, it is well written and the index is full and accurate.

Elements of Medical Treatment

Second edition. By ROBERT HUTCHISON, M.D., F.R.C.P., Physician to the London Hospital. Bristol: John Wright and Sons, Ltd. 1932. Pp. 188. 5*s.*

THE second edition of Dr. Hutchison's useful little book will be welcomed by practitioners as well as by students, for it contains much practical advice. The form of the book remains the same, the only additions being chapters on sedatives, anthelmintics, and physiotherapy. The treatment of many common disorders and diseases is described simply and briefly. The book is meant to be introductory rather than exhaustive, and Dr. Hutchison's main object has been to explain the principles which should guide treatment. Many prescriptions are, however, included, with the reasons for their composition and administration. The details of special diets are full enough in most cases to relieve practitioners from the need to consult larger books. Dr. T. A. Ross's chapter on psychotherapy remains, and provides an excellent introduction to the treatment of anxiety states and hysteria. The chapter on minor medical operations gives useful information.

Students will gain more from a careful study of this little book than they would from many larger and more expensive volumes.

The Sanity of Hamlet

By MACLEOD YEARSLEY. London: John Bale, Sons and Danielsson, Ltd. 1932. Pp. 101. 6*s.*

Mr. Macleod Yearsley contributes one more to the many attempts to solve the question whether Shakespeare intended Hamlet to be suffering from some form of madness or to be a clever counterfeiter of that form. He writes with the object of showing that everything in the play points to assumed and not to actual madness, and a close analysis of the history of the play goes far to confirm this view. Shakespeare he finds retained the machinery of the original play, not always perhaps making the best of that machinery; but he concealed the gaps and inconsistencies in the narrative by glorious verse. A critical conspectus of the modern text confirms Mr. Yearsley's view that Hamlet is sane throughout and that his madness was never anything but make-believe.

INFLUENZA

For Influenza, Coryza and Tonsillitis, **QUINISAN** can be confidently recommended. According to eminent medical evidence

> **"12 x 4 grain tablets of Quinisan during 48 hours gave remarkable results in Influenza, the high temperature and shivering symptoms entirely disappearing by the next day, leaving the patient free from fever and discomfort by the afternoon."**

QUINISAN (Howards) has the unusual property that the Salicylo-salicylic acid content is not hydrolised until it has passed through the stomach. The gastric irritation common with other salicylic preparations does not, therefore, arise.

QUINISAN is Quinine Bisalicylosalicylate, and is sold in tablets of 4 grains through all chemists.

A Sample will be sent to any Medical Man by the Manufacturers—

HOWARDS & SONS LTD. (Est. 1797), ILFORD, LONDON

Vitamin D. IS PRESENT IN ALL

CADBURYS CHOCOLATES

1 Cadbury Bros. wish to inform doctors that, as a result of tests carried out for them by a high authority, it has been shown that the cacao bean contains Vitamin D. (one unit of anti-rachitic activity per gram).

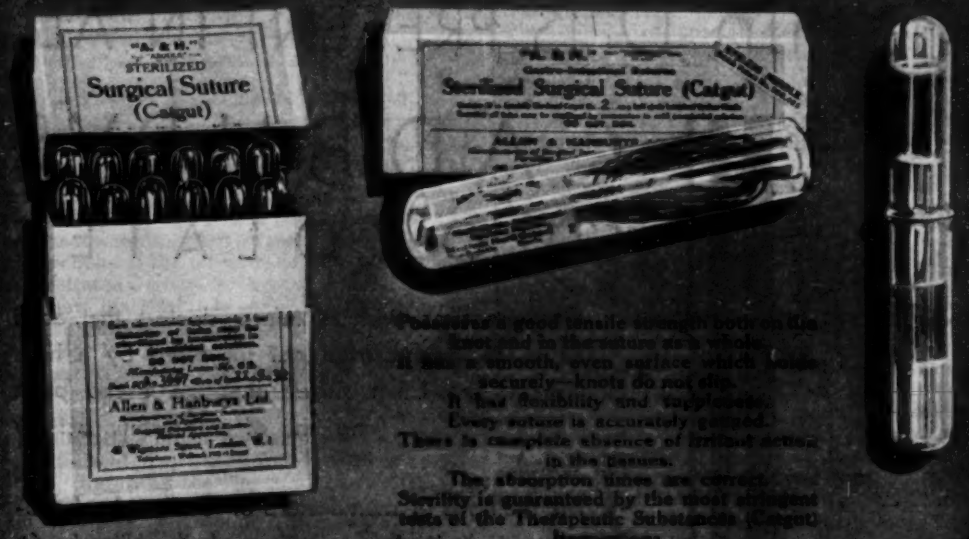
2 The methods of manufacture of Cadbury's chocolates result in the retention of the Vitamin D. natural to the cacao bean.

Use a British Catgut

"A & H"

AZO BRAND

Catgut



Tensile strength good in the knot and in the suture as a whole.
It has a smooth, even surface which holds securely—knots do not slip.
It has flexibility and suppleness.
Every suture is accurately gauged.
There is complete absence of irritant action in the tissues.
The absorption times are correct.
Sterility is guaranteed by the most stringent tests of the Therapeutic Substances (Catgut) Regulations.

Descriptive booklet will be sent on application.

Allen & Hanburys Ltd., London, E.2

Telephone: 3701 Bishopsgate (12 lines). Telegrams: "Grandsire, Beth, London."

Showrooms: 40 Wigmore Street, W.1

See also pp. 9 & 17

THE LANCET

LONDON: SATURDAY, DECEMBER 24, 1932

THE PREVENTION OF MALARIA

PRESIDING at the court of governors of the London School of Hygiene and Tropical Medicine on Dec. 16th, Sir AUSTEN CHAMBERLAIN, referring in sympathetic terms to the death of RONALD ROSS and to his great achievements, said that some uninstructed people appeared to believe that the malaria problem was entirely solved, while, so far from this being the case, although it would not be right to say that there was more malaria in the world to-day than at the time when the Manson-Ross discoveries were made, it would puzzle anyone to prove that there was less. Not only was the lay public ill-informed in this matter, said Sir AUSTEN, but he would make so bold as to state that medical opinion was so also. In expressing agreement with the general message thus delivered, we do so without wishing to disparage the opinions of that school which believes that the eventual elimination of malaria may consist in "swatting that mosquito," nor do we wish to belittle their efforts. The anti-mosquito measures, when practised in limited controlled areas, as in Panama or in certain of the Indian cantonments, have been attended by brilliant results.

But with the progress of time it is seen that these efforts are falling short of expectation, and at the best they are very costly and liable to be upset by all the vicissitudes of nature. During recent years we have heard of recrudescences of malaria epidemics in the Punjab, in Mauritius, and in South America, whilst in several areas, as in Soviet Russia, malaria has appeared and spread where it was unknown before. The impression deepens that the epidemiology of malaria, at the present time, is too incompletely understood, and that further researches, such as those undertaken by Sir LEONARD ROGERS on the epidemiology of plague and cholera, could be profitably initiated on a large scale as regards malaria. In this connexion we welcome the formation, as announced by Prof. W. W. JAMESON at this meeting, of a new Malaria Unit in the London School—a venture which has been made possible by the agency of the Medical Research Council, and by the generosity of Lord LEVERHULME. Linked with the new effort, it should be said, are two names known to all for their research work on malaria, Sir RICKARD CHRISTOPHERS and Colonel S. P. JAMES. The former comes fresh from his place as head of malaria research in India, whilst the latter has to his credit the intimate and revolutionary studies on the subject which he has made at Horton Asylum, Epsom, throwing fresh light on the problems of immunity in malaria, showing the existence of different strains of parasites, and studying the chemoprophylaxis of this disease. The new departure in the policy of the school will bring the large amount of material at Horton into direct connexion with the teaching departments of the school, and with the clinical material at the Hospital for Tropical Diseases, to their mutual benefit. The needs of the commercial community must also be taken into serious consideration. The financial stress of the times weighs heavily upon colonial development, and experienced advice should be given to commercial undertakings in their antimalaria measures.

The chemoprophylaxis of malaria, adopting Colonel JAMES'S term, is becoming daily a more important subject. It is quite evident that the old idea of an efficient quinine prophylaxis has gone by the board. It is still customary in most malaria countries to take a daily ration of quinine in the hope that it prevents the development of malaria. In the English dependencies the routine is 5 grains a day; in other colonies KOCH'S week-end system has been followed. It has now been abundantly shown that the practice rests on no secure scientific foundation, for it has been proved possible to produce malaria infection not only when the sporozoites from the infective anophiles are mechanically mixed with quinine, but even when the victim himself is taking large daily doses of the drug. Quinine prophylaxis has to-day many fewer supporters, but the advent of plasmoquine to the armamentarium of the malariologist has opened up new vistas. It was soon realised that in a drug which exerted a rapid specific and lethal action upon the sexual forms of the plasmodium we possessed a true prophylactic—a prophylactic in the sense that it protected hitherto uninfected individuals by the arrest of development of the parasite within the body of the mosquito. This M. A. BARBER has brilliantly shown. Theoretically, then, it should be possible in a limited and restricted community wholly to prevent the spread of malaria by wholesale dosage with plasmoquine. It has yet to be satisfactorily shown that this is feasible. For one thing, the undoubted toxic action of plasmoquine, when given in sufficient quantities, has proved a bar to its successful adoption, in addition to the idiosyncrasy shown by some individuals to the action of the drug. Plasmoquine differs from quinine by exerting its definite deleterious action on the sporozoites inoculated by the anopheles, so that it is possible to obtain personal prophylaxis by the daily dosage of plasmoquine which should prevent malaria infection of the individual. The exact dosage necessary to bring this about has yet to be determined, and it is essential that the drug should be tolerated without any injurious effects to the individual. It is possible that by the addition of small quantities of quinine better results may be attained than heretofore. Possibly, too, there are other modifications of plasmoquine yet to be discovered which will have a more efficient action in this respect. In atebrin, further, it is becoming apparent that we have a malaricide which possesses essential qualities different from plasmoquine, but which may be effectively combined with the latter in the fight against the disease. Thus, over and above the

possibility of eradicating malaria through the destruction of mosquitoes, recent advances in the chemotherapy of the disease, with the discovery of drugs far more effective than quinine, give us now a reasonable expectation of exterminating the parasite in man on the same lines as have been successfully employed against bilharziasis in Egypt by Prof. KHALIL, and against trypanosomiasis by C. C. CHESTERMAN on the Congo. The prevention and control of malaria still constitutes one of the greatest problems in the world. For the solution of this problem research over a wide field is required—a field which includes both anti-mosquito measures and the use of drugs. Coördination of such research is essential, and it is towards this goal that the efforts of the new malaria unit will be directed, and who can tell into what regions further experiment will lead?

EVIDENCE UNDER THE MEDICAL ACT

AT the last meeting of the General Medical Council one of the members raised an important question as to the value of the evidence submitted on an inquiry into a charge of infamous conduct in a professional respect. The charge was one of canvassing. The allegation had already been examined at a health insurance inquiry, the practitioner being a panel doctor; in consequence of the report by the persons conducting the inquiry under the National Health Insurance Act, the Department of Health for Scotland removed the doctor's name from the Medical List. On being informed of this result, the General Medical Council took up the investigation as a disciplinary matter under Section 28 of the Medical Act. When the Council held its inquiry, the only evidence submitted in support of the charge of infamous conduct was a certified copy of a report of the health insurance proceedings; no witnesses were called. Defending counsel commented on the unusual omission to produce direct evidence, and a member of the Council raised the question whether the Council, if it merely adopted another body's inquiry, could be said to be making "due inquiry" as required by the Medical Act.

The question can be split into two parts—first was the evidence admissible, and, secondly, was the Council making a due inquiry by accepting the evidence? As regards admissibility, it is certain that the Council does not regard itself as bound by the rigid legal rules of evidence. It is not a legal body. Its powers are limited. In Leeson *v.* General Medical Council Lord Justice COTTON contrasted it with an ordinary court of law. "The General Medical Council cannot," he said, "strictly speaking, take evidence. They cannot take evidence on oath. They cannot take evidence which we as lawyers have to consider as evidence." His fellow-judges elaborated the same point. "The forum," observed Lord Justice BOWEN, "is a domestic one, and the evidence taken before such a forum differs in many respects from evidence which is adduced in a court of law, and in particular in the all-important respect that it is not given on oath." Lord Justice FRY also referred to the fact that the General Medical Council proceeds "by different rules of evidence from those on which the courts of law proceed." Thus the judges recognise that the Council is in no way fettered by the rigid legal rules of evidence. Unquestionably, in investigating the allegation of canvassing, the Council was entitled to accept the certified copy of the report of the insurance inquiry. The defendant practitioner was not debarred from tendering witnesses himself to refute the contents of the report. His counsel, moreover, could ask the tribunal to give more weight to the direct than to the indirect evidence. Yet in one sense the indirect evidence might be thought preferable. The insurance inquiry had been conducted by a body of three persons which included a Scottish King's Counsel, and the National Health Insurance Act enables evidence at such inquiries to be taken on oath.

There remains the second part of our question—was the Council making "due inquiry"? Here a confident answer can be given. The Council, as it happens, dismissed the charge, not being satisfied that it was proved. If, however, the Council had deemed the report of the insurance inquiry to be strong enough evidence to justify a finding of "infamous conduct in a professional respect," the finding would have been final and conclusive. If there is no suggestion of corruptness or bias or of some flagrant neglect of the elementary principles of justice, no court of law will interfere with the Council's findings. The judges refuse to re-hear the Council's cases. "Due inquiry," as Sir DONALD MACALISTER observed, must mean such inquiry as the Council, within the limits of its powers, is able to conduct. The discussion focuses attention on the lack of machinery enabling the Council to conduct its inquiries in a judicial manner. The Medical Registration Council of the Irish Free State, set up by the Free State Act of 1927, is better equipped. It has "power to summon witnesses to attend such inquiries and to examine them on oath, and for that purpose to administer an oath to such witnesses, and to compel such witnesses to produce any documents in their power or control." Similarly in England the Law Society, when making a corresponding inquiry into the professional behaviour of solicitors, has statutory power to swear witnesses and to employ the resources of the subpœna. Will the Medical Act ever be amended on these lines? The prospect seems remote. Much as amendment of the Act may be needed, any such proposal might awaken controversies fatal to reasonable change.

THE EARLY LESION IN TUBERCULOSIS

MANY years ago in his lectures on surgical pathology Sir JAMES PAGET laid down the rule that identity of causes should be manifested in identity of effects, but it has taken a very long time to harmonise the observed facts in the histology of the primary tuberculous lesion. VILLEMIN, nearly 20 years before KOCH discovered the tubercle bacillus, was led by his researches to

believe that the germ produced its first lesion in the connective tissue, and he was much perturbed when he found that the early lesion in the lung did not fit in with this hypothesis built up on investigations made on bone and synovial membrane. BAUMGARTEN followed with a beautiful description of the primary lesion in the anterior chamber of the rabbit's eye, and although the work has gone on more or less continuously since these early observations the different parts of the picture are not yet harmonised. GHON's work on the primary focus, chiefly in the lung, started investigations from a new angle, but they were in the first place largely naked-eye observations, that is to say, late changes. Since GHON's original paper appeared a school of pathologists has devoted its energies to the primary focus (Ger. primar Komplex). ASCHOFF and RANKE regard this primary lung lesion as of an exudative character due, it is believed, to the fact that it occurs in a non-infected, non-allergic individual, in contradistinction to the later lesions which tend to be fibrotic or productive and occur in previously infected persons. KRAUSE,[1] who has worked on this subject chiefly in guinea-pigs, in which onset and dose can be stated more precisely, regards the primary nodule as the animal's native capacity to respond to the tubercle bacillus before it has acquired any new capacity for reaction resulting from the first infection. Such a nodule develops in a slow and indolent manner, is sharply delimited from the tissue in which it is set, and comes into being without the cardinal signs of acute inflammation. Only after it has become well established do these signs show themselves. If only a few bacilli are used for the primary infecting dose KRAUSE believes that the origin of the nodular tubercle must be regarded as a proliferative process. Call the parent cell of this proliferative process what you will, he says, this cell exists in situ, and, in a topographical sense, may be thought of and designated as a fixed-tissue cell—that is, it is not exuded from blood or lymph, or attracted from a distance in response to tubercle bacilli. Such a view would at first sight appear to be quite opposed to the view of those who have worked chiefly with human material and regard the first lesion as an exudative phenomenon, but it must be remembered that KRAUSE has worked with superficial lesions more readily accessible to investigation than those examined by pathologists who have confined their attention to the histology of the primary focus in the lung.

In a recent monograph to which we have already called attention[2] J. W. S. BLACKLOCK records a histological investigation of primary foci from 83 cases of tuberculosis in children. The entire lesion in these cases was cut in serial sections 10–15μ thick. The youngest age at which a primary lesion was found was in a child aged 7 weeks in whom two primary lesions of tuberculous broncho-pneumonia were encountered. Extensive caseous change had already taken place in both of these, and there was only slight cellular reaction around consisting of small round cells, large mononuclears, a few epithelioid cells, but no giant cells and no evidence of fibrosis. The earliest stage at which a definite attempt at fibrous tissue formation was observed microscopically was at the edge of a primary lesion of a child aged 4 months with a caseous focus in the right lower lobe. But it was only when Dr. BLACKLOCK reached cases over 2 years of age that fibrosis was found present in all instances. Similar findings were noted with regard to the deposition of lime salts. The earliest age at which this was observed was in a child aged 6½ months. In 14 per cent. of the children under 2 years and 36·4 per cent. of the children over 2 years there was microscopical evidence of calcification in the primary lesions. The earliest stage at which Dr. BLACKLOCK was able to investigate the primary focus from a histological point of view showed a typical localised patch of caseous broncho-pneumonia. In this case the air vesicles were filled with cellular exudate and the central part of the lesion was already caseous and beginning to soften, whilst at the periphery there were fibrous tissue cells with early formation of collagen fibrils. This early lesion was fairly sharply demarcated from the surrounding tissue, and its microscopical appearances were different from those seen in an ordinary secondary broncho-pneumonic tuberculous lesion, in which cellular exudate with the formation of tubercle follicles and evidence of early fibrosis at the edge, such as he found in the primary focus, was never met with. At a later stage the primary focus was found to be completely caseous, and secondary tubercles had formed around it. In the next stage the surrounding fibrosis had become greater and the lesion appeared to be sharply marked off from the neighbouring lung tissue; then fibrous tissue was seen beginning to form around the secondary tubercle follicles. Later still the fibrous tissue surrounding the primary focus began to show signs of contraction and had become more hyaline in character. Finally, the whole lesion was surrounded by a well-formed fibrous capsule, there was calcification in the centre, and the secondary tubercles, which were found immediately round the lesion at an earlier stage, had nearly all disappeared.

Several important points must be emphasised in all this work on the primary focus. In the first place we are considering tubercle in an organism which is possessed only of its initial native resistance to the tubercle bacillus and which has acquired no immunological experience of past infection. Secondly, the comparison of this primary lesion in man and in the lower animals, especially in laboratory animals used for investigation, is fraught with some risk. We have only to compare tuberculosis as it occurs in the reptile, in the small mammals, in the bovines, in the higher apes, in the native non-immunised races of man, and in the immunised European, to realise the differences which complicate the picture. And, lastly, in the case of natural infection we are generally quite ignorant both of the size of the infecting dose and of the date of onset.

[1] Krause, A. K.: The Evolution of Tubercle, New York, 1927.
[2] Tuberculous Disease in Children: its Pathology and Bacteriology. Medical Research Council, Special Report Series 172. H.M. Stat. Office. 3s. See THE LANCET, Oct. 15th, p. 848.

ANNOTATIONS

CHILDREN BY THE SEA

It is now twelve years since the marine branch of the Treloar Hospital was opened at Hayling Island; nearly 2500 children have been transferred there from Alton, and the period has been long enough to allow Sir Henry Gauvain to formulate some definite opinions about the kind of tuberculous child likely to benefit by treatment at the sea. It is well-known, he writes in the 1931–32 report [1] of the hospital, that during the course of a long and trying illness climatic change and altered environment may often be utilised with advantage, and it had been hoped that the more weakly patients who were not responding well to treatment at Alton might improve rapidly at Sandy Point. This expectation was not fulfilled. The cachectic, freckled, marasmic child, the child with muddy complexion, lethargic in habit, who does not bronze readily on exposure to sunlight, and with little power of response to natural stimuli, rarely does well at the seaside. Few sick children under the age of 5 years derive real benefit from it. The fact is that for all such types the strong stimulus of sun, open air, tonic sea breezes, and still more stimulating sea-bathing make too heavy a call on their vitality. These children have not the adequate power of response; they simply become more quiet, peevish, and irritable. Although they need more food, they are unable either to digest or absorb it. They suffer from sickness and biliousness, they lose subcutaneous fat, their skin becomes dry, and only by prompt return inland are these and even more alarming symptoms to be remedied. Experience at Alton has reached the point at which such children are not sent to the seaside until their powers of response to natural stimuli have been fortified to the necessary point. On the other hand, children over the age of 5 years with good digestion, who sunburn readily and react well to natural stimuli inland, will almost always do still better at the seaside. Almost more important is the observation that after response to sun treatment inland the children who reach the point where further progress is arrested or retarded often progress far more quickly when transferred to the seaside. The tonic action of sea breezes is equivalent to effective exercise, without the voluntary movement which is forbidden in tuberculous arthritis. The report sets out the technique of therapeutic sea-bathing, what happens during and after the bathe, and the effect of bathing on these patients. It should be read and inwardly digested, not only by patrons of the Treloar Hospital, but by all parents who propose to take weakly children to the seaside. Of the many mistakes, and they are legion, made on the sea beach, perhaps the most disastrous is the failure to get proper reaction after the bathe. The technique at Sandy Point is as follows:

> The child is taken from the sea and placed in a pen with a warm planked floor and wattle hurdle surround. The latter, while obstructing the wind, allows free circulation of air. In the centre of the pen is an iron brazier in which a coke fire is burning, radiating welcome and pleasant heat. Along one side of the pen is a wooden trough containing warm water. The child is wrapped in a large, warm bath towel, well dried before the brazier, then sits with his feet in hot water, and is given a warm drink. Rapidly he is warm and glowing. The pen resounds with happy laughter. Those who are able to do so link arms and dance round the fire and then all rest for a quarter of an hour in the warm pen, and afterwards play on the beach in the bright sunlight until dinner comes along, and an abnormal amount of food is consumed. There follows a period of rest while food is digested. The technique for those who cannot walk is much the same, except that their feet are sponged with warm water instead of having them placed in the trough. They, too, enjoy a sunbath after a period of rest.

Were this example followed, as it might well be, on other beaches, there would be fewer children returning home without permanent gain from their stay by the seaside.

[1] Lord Mayor Treloar Cripples' Hospital and College, Alton (Hants), and Seaside Branch, Sandy Point, Hayling Island. Report and Statement of Accounts for the Year ending March 31st, 1932, to be obtained from the London Office, 25, Ely-place, E.C.

PROF. JELLINEK HONOURED

Dr. Stephan Jellinek, professor of electropathology in the University of Vienna, has been awarded the Prix Barbier of the French Academy of Science. Early in the present century, Prof. Jellinek established the fact that victims of electric shock who are apparently dead are really in a state of suspended animation, and can be restored to life by artificial respiration. In this way a great number of lives have been saved. Prof. d'Arsonval, in his report to the Academy, referred to Jellinek's latest work on the clinical and histopathological character of electric wounds as an "*ouvrage magistral sans analogue.*" To this diligent research, he said, we owe an entirely new branch of medicine (electropathology), the social importance of which is increasing with the development of the uses of electricity. It will be recalled that in 1913 Prof. Jellinek read a paper before the section of electrotherapeutics of the Royal Society of Medicine, on the treatment of victims of electric shock, in which he uttered the emphatic warning "not to send for the doctor," but to administer artificial respiration without delay. In 1922 he read another paper before the same section on the microscopic appearance of tissue after it had been subjected to strong electric shocks. The university building in Vienna contains his unique collection of objects showing the effects of electric shock and lightning.

PEPTIC ULCER AND GASTRIC CARCINOMA

The relationship between peptic ulcer and gastric carcinoma has recently been examined from the pathological standpoint by Dr. W. D. Newcomb.[1] He represents graphically over 100 published estimates of the frequency of ulcer-cancer; these show a variation from 0 to 90 per cent. Dr. Newcomb suggests as a reason for this variation the lack of definite criteria for the diagnosis of ulcer-cancer. As a morbid anatomist he seeks such criteria not in clinical considerations, but in histological data, and points out clearly the difficulties to be faced. The most important of these is perhaps the frequency with which heterotopic epithelium is found at the edge of healing ulcers, and the consequent risk of mistaking this misplaced tissue for carcinoma. It was present in 44 cases in his collection, and if it had been accepted as evidence of cancer the percentage of carcinoma arising in ulcer would have been 55·5 instead of 13 Probably mistakes of this type account for some of the high figures which have been published, notably in America. Dr. Newcomb considers four histological criteria in the post-mortem diagnosis of previous peptic ulceration: (*a*) complete destruction of an area of muscle corresponding in size roughly to the floor of the ulcer; (*b*) the presence of a large area of dense fibrous and granulation tissue in the floor of the lesion; (*c*) the presence of endarteritis obliterans in the vessels around; (*d*) fusion of the muscularis

[1] Brit. Jour. Surg., 1932, xx., 279.

mucosæ and muscularis at the margin of the ulcer. These are discussed at some length in connexion with control groups of 249 peptic ulcers and 100 carcinomata of the intestine, and the conclusion is reached that fusion of the muscularis mucosæ and muscularis at the edge of the ulcer is as valuable a sign in the diagnosis of ulcer-cancer as the demonstration of tubercle bacilli in the diagnosis of tuberculosis. Application of this test to a series of 307 stomachs removed by operation at St. Mary's Hospital shows that 3·75 per cent. of gastric ulcers had malignant change, and that 13 per cent. of the cancers showed evidence of previous peptic ulceration. These figures are in remarkable agreement with those given by Prof. M. J. Stewart in his Croonian lectures,[2] viz., 6·1 and 15·6 respectively, although he used somewhat different criteria. The outcome of this investigation is twofold. The risk of cancer developing in a peptic ulcer, although small, is evidently not negligible, while, on the other hand, it is clear that the ætiology of most cases of gastric cancer still awaits discovery.

LEEUWENHOEK'S "LITTLE ANIMALS"

A SPLENDID monument of piety and scholarship is published [3] on the 300th birthday of the man who may be described as the "discoverer" of protozoa and bacteria as fairly as anybody may be said to have "discovered" anything. Leeuwenhoek (pronounced "laywenhook") was born on Oct. 24th, 1632, at Delft, where he spent his life, by business a draper and a man of some civic consequence in a town which knew of other than material values. He married in 1654, the year in which a gigantic gunpowder explosion killed the Fabritius who painted the incomparable goldfinch; he was contemporary with Vermeer and his widow's trustee, and he may well have known the girl whose head we all like so much. When exactly he perfected his skill in grinding lenses and made glasses of a magnification and definition hitherto unknown is not recorded, but in 1673 de Graaf (of the follicles) wrote to the secretary of the Royal Society of London to say that his friend and fellow-townsman, "Leewenhoeck," had made some exceptional microscopes, and enclosed a letter by him giving an account of some of the things he had seen with them. From that time Leeuwenhoek continued to send letters to the Royal Society (of which he became a fellow in 1680), the last from his deathbed in 1723, in which he detailed the results of his insatiable curiosity. With his new instruments he looked at everything about him—he even watched gunpowder explode—and made new discoveries about them all—blood corpuscles, the capillary circulation, spermatozoa, the budding of the hydra, the structure of muscles, and more particularly microbes, of which he demonstrated the existence and abundance, though there seems to be no evidence that he suspected them of being of any great importance in the world. From these letters, going back with infinite pains to the original manuscripts as far as may be, Mr. Dobell has extracted and translated what refers to protozoa and bacteria, and has carefully annotated the descriptions and identified the organisms. Leeuwenhoek's microscopes were simple lenses which magnified at the most about 250 times, and how he managed to see what he undoubtedly did see has always been something of a mystery, for he kept the details of his methods to himself; Mr. Dobell makes the likely surmise that he had hit upon some trick of dark-ground illumination. He also exposes the abundant sins, negligencies, and ignorances of previous translators and commentators, though he is, we think, rather hard (p. 351) on the perfectly recognisable medallion which used to appear on the cover of *Abstracts of Bacteriology*—no longer current, as he says, for that journal came to an end in 1926, though the "caricature" still adorns the *Journal of Bacteriology* and reminds us of a great man for the good of our souls. It is all so well done that our only regret is that it has not yet been possible to treat the rest of Leeuwenhoek's writings in the same way. We sincerely hope that Mr. Dobell will long be able to maintain the habits of unremitting industry of which he tells us in the preface, and will take a large part in the preparation of the Opera Omnia which is contemplated by the Dutch committee. The form of the present instalment, if we may so regard it, is hardly worthy of its matter.

[2] THE LANCET, 1931, ii., 620.

[3] Antony van Leeuwenhoek and his "little animals." By Clifford Dobell, F.R.S. London: John Bale, Sons and Danielsson. 1932. Pp. 435. 31*s.* 6*d.*

VISUAL ACUITY

IN a report to the Medical Research Council,[1] R. J. Lythgoe and Dorothy E. Corkill deal with the relation between visual acuity and illumination. In spite of many results to the contrary the view is still widely held that visual acuity comes to a maximum at an illumination of 3–4-foot candles. Artificial illuminants giving more than 10-foot candles are sometimes condemned, but values of more than 100 times this figure are commonly met with out-of-doors, and there is no doubt that acuity is considerably better under these high illuminations, though the author's graphs demonstrate that the rate of improvement is a constantly diminishing one at illuminations higher than 100-foot candles. Moreover, high values of visual acuity are only obtained when attention is paid to the illumination falling on the peripheral retina. In a room that is dark the increase of acuity at high illuminations of the test object is not obtained, but only when the surrounds are 1/100 to 1/10 as bright as the test object. The improvement in acuity is due partly to the constriction of the pupil and partly to an increase in retinal sensitivity. Unless the surrounds are kept adequately illuminated there may even be a falling off in visual acuity when the illumination of the test object exceeds a certain value.

The effect of glare on visual acuity was also investigated—i.e., the effect produced by the illumination of a single spot in the neighbourhood of the test object. When the surrounds are dark, glare may even have the effect of increasing visual acuity, but in an adequately illuminated room the introduction of glare causes a fall in visual acuity which is not due to the pupil and is not abolished by artificial pupils. These results, as will be seen, have a direct bearing on the routine work of eye-testing. Another important aspect of the subject is dark adaptation. The performance of a ship's outlook is inadequate, either if insufficient time is occupied in dark adaptation or if there are bright lights in the field of vision. For accurate and rapid testing of visual acuity it is important to use illuminations over 25-foot candles in a moderately light room. Commercial test-types, it is added, usually contain errors of more than 10 per cent. in their dimensions.

The physiological implications of this study are interesting. The increase in sensitivity of the retina

[1] Committee on the Physiology of Vision. H.M. Stationery Office. 1*s.* 6*d.*

during dark adaptation is so great that there is often a tendency to ignore other aspects of visual adaptation. A twofold apparatus connected respectively with the rods and the cones is generally believed to account for the phenomenon, but it is also true that the sensitivity of the fovea (where there are only cones) seems to be increased by peripheral illumination up to a certain value, beyond which a depression sets in.

THE PROPER USE OF SANATORIA

IN an address to the December meeting of the Tuberculosis Association, Dr. H. Batty Shaw spoke very strongly of the harm done by exercise in cases of active tuberculosis. Rest of the lung, he said, had been shown to be undoubtedly the best form of treatment, and yet patients treated in a sanatorium might be encouraged to go for walks of several miles or to play golf, or allowed to work at carpentry or gardening. Rest being the most effective form of treatment, the sooner it was applied, the more completely it was applied, and the longer it was applied, the better. Collapse therapy, carried out immediately the diagnosis was made, instead of when sanatorium treatment had been tried and had failed, would effect a considerable reduction in the number of cases of chronic pulmonary tuberculosis. What was most needed by each county, Dr. Batty Shaw went on to say, was not sanatoria buried in the country, but more hospitals in busy urban centres administered by tuberculosis officers. The patients admitted into these "tuberculosis institutes," as he preferred to call them, should be divided into three groups: (1) those admitted for closer observation; (2) those admitted for the commencement of treatment by medical or, if necessary, by surgical collapse of the lungs; and (3) those admitted for symptomatic treatment who could not be adequately nursed and accommodated in their own homes. The sanatoria should become convalescent homes, requiring less expensive maintenance because the patients would only stay for a few weeks and would be up and about during their residence. A scheme of this kind would, he claimed, cost but a fraction of the sums now being expended, and materially reduce the mortality from tuberculosis.

THE FLYING DOCTOR IN AUSTRALIA

THE Australian's own name for the two million square miles of pastureland which lie in the interior of the continent is the "outback country," and it is an apt description of that isolated district. The fertility of the soil is counterbalanced by the uncertainty of the rainfall, which makes agriculture even more of a gamble than usual; it has attracted few settlers, and these live scattered over the countryside in widely distant farms. One of the greatest disadvantages imposed by such life is the absence of medical skill and advice in times of illness, and the impossibility of speedy and comfortable conveyance of the sick to civilisation. Dr. W. D. Walker, in a lecture which he gave at the London School of Hygiene and Tropical Medicine on Dec. 8th, described the work of the Rev. John Flynn, superintendent of the Australian Inland Mission, in organising medical services for this area. Some 20 years ago Mr. Flynn began to form the chain of 13 hospitals which now have been set up, each with two well-qualified nurses. But it was not till wireless and aviation had developed that Mr. Flynn found the appropriate means whereby adequate medical care may be provided for a scanty population distributed over an immense tract of country. In May, 1928, Dr. K. St. Vincent Welch, the first "flying doctor," set up practice at Cloncurry in Queensland. With his aeroplane he could attend patients within an area of a quarter of a million square miles, and soon wireless transmitters extended the range of his consulting-room to 600 miles. The sets were both simple and efficient; the power for the wireless transmitters was derived from small foot-pedalled generators, and frontier transmitters were set up at isolated places which had no other means of communication. At first home operators had to learn Morse, but recent improvements have now made it possible for messages to be sent in Morse by tapping an automatic typewriter. The operator at the centre translates the message, and the doctor sends his prescription direct by wireless telephone. During the first year of the service Dr. Welch flew 20,000 miles, and attended 255 patients in 26 centres, all without a single mishap. The solid achievement that these figures represent has grown steadily with every year.

PUBLIC ANALYSTS

SURE knowledge, critical acumen, ripe judgment, and a kind heart form the equipment which Dr. Dyer brings to the difficult task of telling the tale of how a profession grew out of a very heterogeneous group of pioneers. When the first Food and Drugs Acts came into force, as a result of the exertions of Thomas Wakley, founder of THE LANCET, there was no coherent profession of chemistry. A few medical men of outstanding ability and real scientific feeling, others who were anything but scientific, some chemists with a general training, and some mere hangers-on, formed the first public analysts. Divided among themselves, with duties requiring for their fulfilment knowledge which no one yet possessed, subject to the overruling of a government department the members of which were no better qualified than themselves, and feeling it their duty to keep their methods secret, they had a very difficult time. Fortunately they clung together and formed themselves into a society which was at once a research association and a professional union. The history of the Society of Public Analysts from 1875 to 1925 was not an easy thing to write,[1] at least in a manner which would do justice to the steady aim of its leaders to advance the science and profession of analytical chemistry, especially as applied to food and medicines. From 1875 onward to the present time Dr. Dyer has not only taken a prominent part in all the activities of this society, but has watched in a singularly detached way the men engaged in these activities, never blinding himself to their weaknesses and never failing to appreciate the honest and good motives which led to their mistakes. There is no unkindly word nor one of fulsome praise in the 72 pages of reminiscences. The list of presidents of the society includes names well known in medicine: Alfred Hill, Matthew Adams, Thomas Stevenson, and Charles Cameron, besides others who are better known as chemists pure and simple: August Dupré, who with his brother-in-law J. L. W. Thudichum, wrote so learnedly on wines, and who did excellent pioneer work on water analysis; Alfred Allen, whose "Commercial Organic Analysis" is still a well-known classic; the debonair and learned Alfred Chaston Chapman, who has died since this book was compiled; and other outstanding analysts. The society has always been associated with the *Analyst* which—

[1] Fifty Years of the Society of Public Analysts. By Bernard Dyer, D.Sc., F.I.C., and C. Ainsworth Mitchell, M.A., D.Sc. Cambridge: Heffer and Sons. 1932. Pp. 278. 12s. 6d.

at first, and for many years, published under private ownership—is now the society's property. It is therefore fitting that Dr. Mitchell, its editor, should supplement Dr. Dyer's contribution by a review of the society's activities as disclosed therein. The *Analyst* has always lived up to its comprehensive name, and has published many papers which bear testimony to the wide activities of British analysts. Dr. Mitchell's contribution is a valuable epitome of half a century of analytical research in this country.

SOUTH AFRICAN INSTITUTE FOR MEDICAL RESEARCH

THE South African Institute for Medical Research, under the direction of Sir Spencer Lister, has an annual budget of £56,000 a year, of which sum, however, over £40,000 is allotted to the routine division. This division, which undertakes pathological investigations of all kinds for many hospitals and public health authorities, occupies a corresponding share of the annual report, full details of the tests made in the seven departments of the main institute and in the branch laboratory of Port Elizabeth being supplied. The ample material to which workers in this department have access provides opportunity for special studies which is evidently not neglected. For example, it is stated that in the pathological department work has been begun on the complications arising from pulmonary root gland infections in cases of infective silicosis of these glands, on the site of the primary lesion in the lung, when one exists, and on the relation between such a lesion and tubercle silicosis and silicosis with overt tuberculosis. It is noted that the incidence of primary carcinoma of the lung among Rand miners does not seem to be greater than that of the remainder of the population. Autopsy records reveal ten cases in a group of 1600 European miners, in five of which no evidence of silicotic lesions in the lung had been observed; in a control group of 670 European males five cases were found, no cases occurring among 293 females coming to autopsy during the same period. Satisfaction is expressed with the results of a polyvalent anti-pneumococcal serum prepared in the institute for which there is apparently a good demand.

The research division contains departments of bacteriology, industrial hygiene, biochemistry, pathology, and entomology. The work recorded includes studies of the bacteriology, immunology, geographical incidence, and epidemiology of pneumonia on the Rand; dusting experiments on guinea-pigs and monkeys, and the elaboration and standardisation of methods of dust estimation; the investigation of the diet of mine natives, especially its vitamin A and calcium content; and attempts to influence carcinomatous growths in animals by micro-organisms (*Salmonella gallinarum*) cultivated in tumour filtrates. Following the recommendation of Prof. N. J. Swellengrebel, a field station for malaria research has been established at Tzaneen, in the north-eastern Transvaal.

THE DEVELOPMENT OF PLASTIC SURGERY

THE repair of congenital defects, of traumatic disfigurement, and of deformities caused by disease or by its treatment is an aspect of surgery which has made great strides during the last 20 years, mainly owing to the war; the application of the technique acquired to cosmetics has also advanced in some countries to an extent which raises ethical questions not easy of solution. In France a quarterly journal, the *Revue de Chirurgie Plastique*, now in its second year, is devoted exclusively to this specialty. The editor is Dr. M. Coelst and its contributors are plastic surgeons of repute; its contents are published in French, English, German, Italian, or Spanish, according to the nationality of the contributor, summaries being furnished in French, English, and German. Abstracts of papers published in other journals and book reviews are printed in French. The general recognition that physical deformity is nearly always associated with psychological trauma has given to plastic surgery a social value which is now undisputed. The special skill and experience demanded of the operator if the end-result is to be good is, however, often underrated, and the attempt to secure a perfect cosmetic as well as a good functional result in a single operation for hare-lip or some such deformity has not always proved successful. The case for aseptic closure, with simple adjustment, followed by secondary reconstruction is well illustrated by Sir Harold Gillies and Mr. T. P. Kilner on another page. They note that it is far easier to free the patient from any outward sign of hare-lip when the primary closure has been confined to a simple approximation than when complicated flaps have been employed. The flat contour, depressed lip of nose, and wide nostrils which often characterise the victim of a repaired deformity can, it seems, be removed at any age, while the adjustment of a crooked nose or irregular lip presents no great difficulties. It may be more difficult to reconstruct a face on the basis of a previous unsuccessful attempt.

THE SERVICES

ROYAL NAVAL MEDICAL SERVICE

Surg. Capt. C. K. Bushe is placed on the retd. list.
Surg. Lt. C. B. Fox to be Surg. Lt.-Comdr.
The following appt. is notified: Surg. Rear-Admiral J. S. Dudding to *Vivid*, for Plymouth Hospital.

ROYAL NAVAL VOLUNTEER RESERVE

Surg. Lt. L. C. Rogers to be Surg. Lt.-Comdr.
Surg. Sub-Lt. T. Clover to be Surg. Lt.
E. C. Johnson is re-entered as Surg. Lt.
Proby. Surg.-Lt. W. H. Carr to be Surg. Lt.
Proby. Surg. Sub-Lt. F. W. Baskerville to be Surg. Sub-Lt.

ROYAL ARMY MEDICAL CORPS

Lt.-Col. H. L. Garson to be Bt. Col.
Maj. J. P. Clarke to be Lt.-Col. and to comd. 164th (W. Lancs.) Fd. Amb.
Maj. E. L. Sandiland to be Lt.-Col. and to comd. 170th (Cav.) Fd. Amb., vice Lt.-Col. H. L. Garson.
Capt. G. A. Fisher to be Maj.
Lt. A. V. Mackenzie to be Capt.
Supernumerary for Service with O.T.C.—S. McDonald (late Offr. Cadet Lce.-Corpl., Edinburgh Univ. Contgt., Sen. Div., O.T.C.) to be Lt. supern. for serv. with Durham Univ. Contgt., Sen. Div., O.T.C.

TERRITORIAL ARMY

Lt.-Col. and Bt.-Col. G. F. R. Smith, from Gen. List, R.A.M.C. (T.A.), to be Col. and A.D.M.S. 55th (W. Lan.) Div., vice Col. D. C. L. Orton, vacated.
Col. D. C. L. Orton to be Hon. Col. 2nd (Cav.) Divl., R.A.M.C.
Lt. A. J. King to be Capt.
D. M. Mackenzie (late Offr. Cadet, Glasgow Univ. Contgt., Sen. Div., O.T.C.) to be Lt.
Capt. W. L. M. Gabriel to be Maj.
Capt. G. W. Robinson resigns his commn.
Lt. W. R. Sprunt to be Capt.
Capt. J. C. Nicholson (late Cadet Corpl., Brighton Col. Contgt. Jun. Div. O.T.C.) to be Lt.

TERRITORIAL ARMY RESERVE OF OFFICERS

Lt. R. N. Kinnison relinquishes his commn. on appt. to the R.A.F.

SPECIAL ARTICLES

KING EDWARD'S HOSPITAL FUND FOR LONDON

THE annual meeting of the general council of King Edward's Hospital Fund for London, for the purpose of awarding grants to the hospitals and convalescent homes, was held at St. James's Palace on Dec. 15th, H.R.H. The Prince of Wales presiding.

His Royal Highness read a message from the King congratulating the Fund on being able to raise its distribution to £300,000 without trenching on reserves.

INCREASED DISTRIBUTION OF £300,000 OUT OF INCOME

Continuing, he said that there were two outstanding facts: first the increase in the distribution from £275,000 to £300,000 and secondly the distribution of £300,000 out of current income received during the year. It was very unusual to make an increase of £25,000 in one year; the average in the past had been about £8000. But, in view of the exceptional difficulties of the hospitals during the present crisis it was the duty of the Fund to take exceptional measures to help. It was possible to do this because of the remarkable way in which the income was keeping up. Legacies, which for five years past had exceeded £60,000, were expected to come within about £1000 of that figure. Donations were smaller because the very large single gifts to which the Fund so often owed power to increase the distribution had not been received. On the other hand, the League of Mercy was increasing its contribution from £17,000 to £20,000. He thought this result one of which all connected with the League of Mercy might well be proud. From the British Charities Association £10,000 had again been received, being the share allocated to London hospitals from the efforts of the association, which, under the chairmanship of Lord Luke, had been so fertile in new schemes and so efficient in carrying them out.

The result was that, after allowing for expenses, which were less than 1s. in the £, the net income was expected to come out at almost exactly £303,000.

THE EXCEPTIONAL NEEDS OF THE HOSPITALS

That the difficulties of the hospitals were both very real and very exceptional needed no proving. There ought to be an end of any talk about a gradual drying up of the stream of charity. No one yet knew what had happened in 1932. But voluntary hospital income, taken as a whole, went on growing year after year, right down to the end of 1931. This was because the British nation, taken as a whole, believed in maintaining the voluntary hospitals as an essential part of the medical service of the country; and in maintaining, in those hospitals, the qualities of freedom and elasticity which a nation could buy with voluntary contributions, and which were so well worth paying for. At the present moment the hospitals, which supplied these good things, were finding it exceptionally difficult to collect the voluntary contributions, by which the public payed for them. But that was only because large numbers of the public could not at the present moment afford to pay. The encouraging thing was that so many of those who could afford it were giving rather more, just because others had to give less. If that spirit continued in 1932 and 1933 as it did in 1931, the hospitals ought to come through the crisis.

GRANTS TOWARDS PENSIONS FOR NURSES AND OFFICERS

The total distribution of the Fund was really £320,000, because of the grants towards expenditure on the pensions scheme. These had now reached the maximum of £20,000, which would more than use up the whole of the margin of income over and above the £300,000. The balance would have to be taken from the special pensions reserve built up during the past four or five years.

FORTHCOMING REPORT OF OUT-PATIENT COMMITTEE

The report of the out-patient committee, of which Lord Onslow was the chairman, would be published before the council meeting early in January. The subject of the inquiry was the methods in use at hospitals, and their effect on the suitability of the patients treated and on the time of waiting. The report discussed the relation of the out-patient departments to other present-day agencies for providing medical treatment, and it also contained a general survey of the methods of procedure, during the various stages in the passage of a patient through the out-patient department of a hospital. But these methods differed at different hospitals, and the committee had accumulated a mass of information which they could not very well put into their report. One of their recommendations was that the council of the King's Fund should consider to what extent and in what ways it could usefully render this detailed information available, and assist in the carrying out of the other recommendations. The management committee suggested that a small follow-up committee should be appointed to do this, in consultation with the hospitals, and in coöperation with the management and distribution committees. If this proposal was acceptable to the council, his Royal Highness proposed to constitute the new committee at the beginning of January next. One object of this follow-up committee would be to help the hospitals to compare their different methods, and to profit by each other's experience, especially by the numerous time-saving improvements which had recently been effected. For it was evident that the hospitals themselves had been giving a great deal of thought to the problem of reducing the time of waiting.

The late Sir John Young, a pioneer in red-cross work and an active hospital worker, had left his house to the King's Fund to be used as a convalescent home by a hospital in which he was interested, together with money for partial endowment. This was to be a permanent memorial to his wife. For the purposes of propaganda a subcommittee, of which Mr. Saxe Wyndham was the chairman, had been preparing a miniature hospital so as to show what a modern hospital was like. This would be on view in Bond-street early in the new year. This had been submitted to the Queen, who had expressed her approval of it, and he himself hoped to open the exhibition.

The Prince concluded his speech by expressing the regret of the Fund at the death of Sir Charles Stewart and Sir Bernard Mallett, and thanked Sir George Cooper and the distribution committee for all their work.

TREASURER'S STATEMENT

Mr. E. R. Peacock (the hon. treasurer) said that by increasing the distribution from £275,000 to £300,000 on an income of £303,000 they had taken a risk, but they trusted that their friends and supporters would agree that it was a sound thing

to do, and would ensure that, now the £300,000 mark had been reached, there should be no going back.

THE LEAGUE OF MERCY

Lord Marshall said that the grant from the League of Mercy this year would be £20,000. The funds delivered this year were largely augmented by the very successful entertainment at which the Prince of Wales was present and in which he took a very deep personal interest. Since its inauguration in 1899 the total sum contributed to the Fund by the League of Mercy exceeded half a million pounds.

DISTRIBUTION TO HOSPITALS

Sir Cooper Perry, chairman of the distribution committee, presented the report on the distribution to hospitals (including recovery and convalescent branches), and moved its adoption. The report stated that the number of hospitals applying for grants was again 147, as in 1931, an application having been received from the Institute of Medical Psychology, while the Ormond Maternity Home was no longer in the list. The following grants made in previous years had not been applied for, and came up for consideration under the two-years' rule :—

Deptford and Greenwich Babies' Hospital, £350 to rebuilding and extension on new site; Hospital for Epilepsy and Paralysis, £900 to extension; Invalid and Crippled Children's Society's Hospital, £50 to enlargement of verandah; Mount Vernon Hospital, £500 to extension; National Hospital Queen Square, £250 to extension; Poplar Hospital for Accidents, £500 to extension of out-patient department; Queen's Hospital for Children, £250 out of £1000 to additional beds and nurses' accommodation; Royal London Ophthalmic Hospital, £250 to extension of out-patient department; St. John's Hospital, Lewisham, £250 to new children's ward, to be the last £250 to open free of debt; South Eastern Hospital for Children, £400 to new casualty department and pay beds.

The committee considered that all these grants should be renewed, and that, of the grants to the Deptford and Greenwich Babies' Hospital, £150 should be transferred to the scheme for new premises and £200 be held in reserve.

Sir Leonard Cohen (hon. secretary) presented the list of awards, which showed that the grants to hospitals (including recovery and convalescent branches) for the year 1932 were: ordinary grants, £297,000; special grants towards expenditure under the Federated Superannuation Scheme for Nurses and Hospital Officers, £20,000; making a total of £317,000. The grants to non-hospital convalescent homes amounted to £3000, producing a total distribution of £320,000.

Sir George Roberts having seconded the motion it was carried unanimously.

Sir Cooper Perry then proposed the adoption of the convalescent homes report. This stated that the number of applications eligible for consideration amounted to 56, as compared with 57 last year.

Sir Harold Wernher (hon. secretary) having presented the list of awards, the motion was seconded by Mr. H. L. Eason and carried unanimously.

On the motion of Mr. Eardley Holland, seconded by Lady Hudson, it was resolved that the cheques for grants should be posted within the next four days.

REPORT OF THE OUT-PATIENT COMMITTEE

The Earl of Donoughmore presented a report on this subject, and moved a resolution in conformity with the remarks of His Royal Highness in his opening address. This was seconded by Lord Ebbisham and carried.

ARRANGEMENTS FOR 1933

The Prince said that Mr. Robert Fleming and Mr. Spencer, whom he wished to thank, were retiring from the council. He intended to reappoint all the other members of the General Council. To the finance committee he intended to appoint Mr. E. R. Peacock as the chairman, Mr. Montagu Norman, Sir Harold Wernher, Mr. Lionel de Rothschild, Mr. Philip Fleming, and Mr. Beaumont Pease; while the distribution committee would consist of Sir Cooper Perry, chairman, Sir John Rose Bradford, Sir Frederick Fry, Sir Ernest Pooley, Mr. Warren Low, Dr. Morley Fletcher, Mr. Eardley Holland, and the hon. secretaries. Dr. H. L. Tidy would be added to the hospital committee. The members of the new "Out-Patient Arrangements Committee" would be notified to the meeting of the Fund in January next.

On the motion of the Earl of Donoughmore, seconded by the Rt. Hon. J. H. Whitley, resolutions were approved delegating powers to the various committees for 1933, and a vote of thanks to the Prince of Wales was proposed by Mr. Angus Scott, chairman of the London Council, and seconded by Viscount Hailsham. His Royal Highness replied, and the meeting terminated.

On the same day the annual meeting of presidents of the League of Mercy was held at St. James's Palace, when a congratulatory message from the King was read by the Prince of Wales, who also presented the Order of Mercy and the Bars of the Order to the workers of the league. His Royal Highness was accompanied by the Princess Royal, Grand President, and Princess Marie Louise.

LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE

ANNUAL MEETING

THE Court of Governors of the London School of Hygiene and Tropical Medicine held their annual meeting at the School on Friday, Dec. 16th, when Sir Austen Chamberlain, the Chairman of the Court, presided over a well-attended meeting.

Sir HARRY GOSCHEN, Chairman of the Board of Management, made a statement as to the present position of the School which he congratulated on having secured as Chairman Sir Austen Chamberlain, with his great hereditary association from his father with the cause of tropical medicine. Sir Harry expressed the indebtedness of the School to the generosity of the Rockefeller Foundation which could not fairly be asked to do more; it definitely rested now with the British Empire, through the Exchequer and individual subsidies, to see that the great work of the School was maintained and expanded.

Prof. W. W. JAMESON, Dean of the School, gave a gratifying account of its progress. Although appointments were at the moment, he said, fewer in the Colonial Services than in the immediate past, they were opening the present session with 95 whole time students while other students would certainly be enrolled for different courses during the ensuing academic year, since students came to them from all parts of the world. He announced the formation of a new malaria unit in the School, a development made possible by the support of the Medical Research Council and Lord Leverhulme. He added that 153 whole-time students went through the School during the past year.

Sir AUSTEN CHAMBERLAIN, after warmly acknowledging the reception accorded to him, expressed the

deep gratitude of the School to the Rockefeller Trustees whose original endowment had put them in possession of a magnificent institution specially constructed and equipped for its object, and whose succeeding and continued beneficence had assisted them to tide over present difficulties. He said he would have a sense of shame in relying further on the aid of the Rockefeller Trustees on behalf of an institution situated in the heart of our own Empire, and he thought it was up to the Empire to provide the funds necessary for the current expenditure and for the ensuing development of the work. He called particular attention to the endowment by the Prudential Assurance Company of a Chair in Public Health for a period of seven years, and he expressed the hope that if the Company was satisfied with the results of its action the endowment might later be repeated for another period. Sir Austen begged other great institutions and corporations similar to the Prudential Assurance Company to follow the example thus set, and pointed out that, as the day of individualism in business was over, so grants and donations had now to be obtained from companies and from firms which formerly were received from individual sources: it was to-day, he said, necessary to look for pecuniary support to the directors of great concerns acting in the name of the shareholders. He pointed out that, reduced to a fair minimum, the income of the School was short by at least £10,000 of that necessary to meet its expenditure, and this without attempting further development in the face of the prevailing depression, maintaining only the position that had been reached. Sir Austen concluded by paying an earnest and apt tribute to the services rendered in the field of tropical medicine by Ronald Ross whose name, he indicated, would be associated with that of Manson in a permanent way on the edifice of the School; but he feared that the public, and even the medical profession, had too generally accepted the easy view that the problem of malaria had been solved by the researches of Manson, Ross, and others. So little was this the case, he thought, that it would puzzle anyone to prove that there was less malaria in the world now than before those discoveries were made. Much work, general and special, was being done, but much remained to be done if not only the ravages of malaria were to be kept down but the disease itself eliminated.

Sir ERNEST GRAHAM-LITTLE proposed the adoption of the Annual Report and said that he was proud to point out the prominent part played by the University in the financial support of the School, which was definitely a post-graduate department of the University of London. The motion was seconded by Sir OSCAR WARBURG and carried unanimously.

MEDICINE AND THE LAW

Posing as a Medical Man

SENTENCE of two years' imprisonment was passed by Judge Whitely at the Central Criminal Court on Dec. 9th on Percy Seymour Kelly, 38, described as a clerk, when he was found guilty of obtaining money by false pretences with intent to defraud. Mr. Gerald Dodson, prosecuting, said that it was a remarkable case of a man who over a period of years had pretended to be a registered medical practitioner, and on those pretences he had obtained credit and money by fraud. In January, 1927, he was conducting a practice in the name of Dr. Braddock in Stoke Newington, and after obtaining credit in that district he disappeared. In April of this year he reappeared under the guise of Dr. Martin and went to a medical agency to seek employment as a locum. A position was obtained for him with a doctor at King's Lynn, and whilst there he obtained credit at various shops and was paid £18 for his services as a locum. There was no doubt, said Mr. Dodson, that the defendant knew something about medicines and medical practice because he had practised his frauds successfully for some years.

Kelly in the witness-box said that after being educated at King's College he went to Harvard where he passed medical examinations, and in 1923 he became a doctor of medicine at the Northwestern University, Chicago. From there he went to New Guinea, the Solomon Islands, and later to Assam, where he practised as a doctor in leprosy camps. Subsequently he put ashore at Singapore, and fell ill with fever. He recovered, and the Governor's secretary asked him to bring home a certain high official (whose name he handed to the judge) to England. He admitted that he had worked under other doctors' names for some time. In the majority of cases however he had received excellent testimonials from those for whom he had worked.

When the jury had returned a verdict of guilty Inspector Thomas went into the witness-box and stated that there were 34 other offences which Kelly wanted taken into consideration. There were previous convictions against him in this country; he had been deported from the United States of America, and from Canada, and he had been posing as a doctor for many years. In passing sentence, Judge Whitely remarked that Kelly had posed as a member of a very honourable profession. He was not qualified in his work and was a man of bad character. If he continued to pose as a doctor when he came out of prison he would be sentenced to penal servitude.

Face Powder not Medicine

The managers of drug stores in the High-street of Penge were lately fined £1 for selling face powder after 8 P.M. This was one of those prosecutions under the Shops Acts which seem a vexatious perpetuation of war-time restrictions but which are scarcely avoidable if the "early closing" policy is to be maintained. A representative of the prosecuting local authority, appearing in support of the summons, said he anticipated that the defendants would plead that face powder was medicine which, as chemists, they were entitled to sell after the normal closing time. To dispose of this defence, he is reported to have quoted Shakespeare, and to have cited an Act of Henry VIII.; but the brief reports of the case, by omitting to specify the particular statute, prevent us from appraising the strength of the argument. Was it perhaps 34 and 35 Henry VIII., cap. 8, "a Bill that persons being no common surgeons may minister medicines notwithstanding the statute"? This Act of 1543 provided that "persons having knowledge and experience of the nature of herbs, roots and waters or of the operation of the same by speculation or practice" may administer "any herb or herbs, ointments, baths, pultess and emplaisters" according to their skill, in spite of the statutory monopoly of the Company and Fellowship of the Surgeons of London. The fact that herbs, ointments, baths, poultices, and plasters were regarded as medicines nearly 400 years ago seems to be of scant legal significance to-day. Whatever Act of Henry VIII. was cited in the Penge case, the bench would presum-

ably still rely on its common sense and its knowledge of modern contemporary life.

Ecclesiastical Qualifications

The above-mentioned statute of 1543 is an early instance of a concession to the unqualified practitioner. It attacks the statutory monopoly of the surgeons which was based on an Act of 1511. This earlier statute recited the inconveniences caused by ignorant persons practising physic and surgery, and in part using sorcery and witchcraft to the "great infamy of the faculty"; it proceeded to forbid anyone to act as a physician or surgeon within the City of London or a radius of seven miles therefrom, unless approved by the Bishop of London or the Dean of St. Paul's, these ecclesiastical dignitaries being assisted for the purpose by four doctors of physic and by other persons expert in surgery. The Act is still unrepealed, though it must be a long time since the Bishop or the Dean conferred a medical qualification. The Archbishop of Canterbury has power to grant degrees, and still exercises his power from time to time. The authority for conferring these so-called "Lambeth degrees" is understood to represent a survival, from pre-Reformation time, of the powers of a Papal legate; the Archbishop exercises it by granting such degrees as his own university would grant. If an Oxford man, he grants such degrees as Oxford would give—if a Cambridge man, such degrees as Cambridge would give, and so on. But the Archbishop makes it a rule to refrain from conferring medical degrees, although, during a well-remembered controversy, it was suggested that he should make a curious exception.

To return to the Act of 1543, it was less respectful to the faculty than the Act of 1511. The London surgeons, it declares, "minding only their own lucres and nothing the profit or ease of the diseased or patient, have sued troubled and vexed divers honest persons" who have been using their skill without the ecclesiastical qualifications. "And it is now well known that the surgeons admitted will do no cure to any person but where they shall know to be rewarded with a greater sum or reward than the cure extendeth unto; for in case they would minister their cunning unto sore people unrewarded, there should not so many rot and perish to death for lack or help of surgery as daily do." The unqualified practitioner is no longer to be vexed by prosecutions, for "the greatest part of surgeons admitted been much more to be blamed than those persons that they trouble."

RESEARCH AT THE LONDON HOSPITAL

SOME of the work in progress at the London Hospital is described in a report on the investigations carried on under the Freedom Research Fund during 1932.

Filtrable viruses.—Dr. S. P. Bedson, senior Freedom Research Fellow, has continued his inquiry into the virus of *psittacosis*. It has been possible, he says, to obtain the virus in relative purity, and to demonstrate that the virulence of a suspension of psittacosis material resides in the coccus-like particles seen in preparations made from virulent tissues. It appears that these particles or elementary bodies represent only one stage of the virus. On gaining access to reticulo-endothelial cells, they give rise to homogeneous masses or plasmodia; these in turn divide into a number of more or less equal portions between 1 μ and 2 μ in size, and from these, by a process of repeated division, the elementary bodies or ultimate phase again arise. Dr. J. O. W. Bland has repeated this morphological study in tissue culture and found the same sequence of developmental forms. The findings point to the virus possessing a developmental cycle, and suggest that it is more akin to the mycetozoa than the bacteria.

Dr. R. T. Brain, with a grant from the Yarrow Fund, has studied the incidence of *herpetic antibody* in human sera by means of the complement-fixation reaction. His findings confirm and extend those of Andrewes and Carmichael (1930), and show that this antibody is only found in persons who are subject to herpetic eruptions. He has also investigated the relationship between the viruses of *zoster* and *varicella*. The work of Netter and his colleagues, showing that the sera of convalescent zoster and varicella cases contain antibodies which fix complement equally well in the presence of zoster and varicella antigens, has been confirmed. It is felt, however, that these findings do no more than demonstrate a close antigenic relationship between these two viruses. The claim of Ramsay Hunt that cases of facial paralysis accompanied by a vesicular eruption in the sensory area of the seventh nerve are due to the zoster virus has also been tested. The evidence obtained by Dr. R. S. Aitken and Dr. Brain corroborates Ramsay Hunt's hypothesis, and also shows that a certain number of cases of facial paralysis unaccompanied by any vesicular eruption are probably due to the zoster virus.

Glandular fever.—Dr. Bland reports that transmission of infection to rabbits and guinea-pigs with blood from a further case was successful. The appearance of toxoplasms in the rabbits receiving blood from this new case has increased significance in that the rabbits were a toxoplasm-free strain. The toxoplasm is now being examined in tissue culture.

Gliomata.—In conjunction with Dr. Dorothy Russell, Dr. Bland has studied human gliomata in tissue culture. A representative series of these tumours has been cultivated. The cells exhibited great plasticity of form during migration, but preserved their morphological characters on coming to rest, thereby emphasising the specificity of different types. Actual multiplication of cells was seen in two examples of spongioblastoma multiforme only. The investigation gives considerable support to the modern classification of gliomata such as that of Bailey and Cushing.

Immunity reactions.—Dr. F. Campbell Smith has continued to collaborate with Dr. J. R. Marrack in the study of immunity reactions. Their earlier work had established that antibodies were altered serum globulins which formed definite insoluble compounds with their specific antigens. This led to a study of the specific combination in immunity reactions and a method has been evolved whereby the combination between antibodies and simple substances (haptenes) containing the active antigenic group can be demonstrated directly. Antisera to the azo-proteins made from p-amino-benzene-arsinic acid and p-amino-benzene-sulphonic acid were prepared in rabbits, and the specific union between the globulins of these sera and the corresponding haptenes was demonstrated by a direct method. Thus what Landsteiner inferred from indirect evidence has been shown to be capable of direct proof, and since one of the partners in the combination is a pure substance of known structure and composition, the method should prove of value in the elucidation of the immune reaction.

Specific cancer tests.—The apparatus used at Hamburg by Dr. Dannmeyer and his colleagues has now been installed at the London Hospital, and Dr. Campbell Smith and Dr. E. R. Holiday are engaged on a repetition of the German work.

A ROMAN CATHOLIC HOSPITAL.—Dr. Amigo, the Roman Catholic Bishop of Southwark, announces that it is hoped to build a Roman Catholic hospital for south London at a cost of £100,000. A site has been acquired in Lambeth-road, but work will not be begun until money is available.

THE DOCTOR'S DAY

"Come, tell me how you live," I cried,
"And what it is you do!"

VII.—THE ESTABLISHED CONSULTANT

IT is desirable at the outset to define a consulting physician as one attached to the medical side of a teaching hospital. I am well aware that many admirable physicians whose advice is eagerly sought by their fellow practitioners, and who are in the best sense of the term consultants, do not possess this qualification. But for the purpose of this article, I believe it will be generally agreed that the definition imposed is satisfactory, even if it errs on the side of undue rigidity and over-accurate limitation.

Let us then examine the duties, the activities, and the obligations which such a position will involve. In addition to his private practice, the consulting physician will have as a charge, the care of hospital out-patients or in-patients; the instruction of medical students, clinically or by lectures; participation in the administration of the hospital so far as the honorary medical staff is concerned; and association with the numerous social concerns which all hospitals and a fortiori teaching hospitals accept as essential to their well-being and even existence.

In respect to each and every one of these activities, there may be a very wide range with corresponding claim on his time. His social obligations may be limited to permission to include his name and his lady's as patrons of this, that, or the other function in which they have not the faintest interest and which they have not the slightest intention of attending. Similarly, he may be president of several of the various athletic, literary, and recreative clubs and societies which form an important part of a student's life; supervisor or even editor of the hospital magazine; and the haven of appeal for the odds and ends of emergencies and difficulties which constantly arise and are beyond the realm of classification.

On the administrative side, he may avoid trouble by failing to present himself at a single meeting of the medical committee. On the other hand, his patriotism may make him a regular and assiduous attendant, in which case he can be certain of a place on every subcommittee elected to report upon the thousand and one matters referred from the lay board, or which crop up as items in the problems of the school of medicine.

So far as the hospital itself is concerned, one physician may consider his duty well fulfilled by the four hours per week which he rather perfunctorily sacrifices from his private work to devote to the care of the sick poor, whilst another may regard four times that allowance as all too short in the interest of philanthropy happily combined with clinical enthusiasm. One may be ready to delegate his duties to a junior on every occasion which offers an invitation, a reason, or an excuse for his absence; another may refuse any circumstance short of bodily illness or extreme emergency which interferes with his routine lecture, ward round, or attendance at the out-patient department. It will be conceded that examples of these extremes can be identified although the majority in playing a part beyond reasonable criticism steer a middle course between ultra-conscientiousness and shabby disloyalty.

IN THE CONSULTING-ROOM

How now will an average day of the consulting physician be spent, and how may one visualise departures from the average? Early rising is essential in order that breakfast—often the only leisured and uninterrupted meal of the day—may be eaten with a proper concession to digestive needs, and at least a perfunctory scrutiny of the newspaper. By 9 o'clock he is in the lecture theatre, and at ten minutes past ten in his consulting-room with his letters prepared for consideration by his secretary, and the first patient already in the waiting-room.

It may not be a lecture morning, in which case the hour may be devoted to correspondence which will otherwise be dealt with later in the day, a visit to one or more nursing homes, or possibly a consultation in the neighbourhood. But in any case the real business of the day begins at 10.15, and every minute lost, unutilised, or wasted before then, exacts its toll as the morning passes.

There are many occasions when the consulting physician contemplates wistfully, or with envy, the specimen page in his admirable, indispensable "Consultant's Diary." Enviously, in times of slackness, when he sees that his predecessor of perhaps 40 years ago was presumably seeing patients during the day at intervals of 15 minutes; wistfully, in times of stress, to reflect that his predecessor was permitted to work on such a basis. Those were the days, he supposes, when a glance at the tongue, palpation of the pulse, a formal application of the stethoscope, and a few words of unquestioned opinion and advice constituted a reasonable consultation.

Contrast the conditions to-day. The problem presented will almost invariably comprise the examination of radiograms, of pathological reports, together with the opinions of specialists and other consultants; whilst the physical examination must include—as is rightly expected—the application of sundry instruments of precision which, however automatic in service, demand a certain irreducible minimum of time. Quite apart from the purely professional side, the consultant will be fortunate if the interview ends with the patient and his medical adviser, and is not continued by a number of relations who labour under the delusion that their presence is vital to the success of the examination in case some crucial point in the family history has been forgotten and will jeopardise the value of the consultation. Cheerfully enough they give the impression that any amount of their time should be devoted to a good cause, and they see no reason to curtail the entertainment. And even when they have been in some way eliminated, it is not unusual for the doctor himself, somewhat shamefacedly repudiating the responsibility, to announce that his wife had particularly requested that "the rule should be run over him" whilst he had this chance with Dr. A. It is not unknown for him to take advantage of the opportunity to bring up a daughter as well for an opinion, and in any case he wants to talk over a very peculiar case he has recently encountered, not to mention a few minutes' gossip of the days when they were "on the house" together. With increasing experience the capacity is developed of reducing all time-wasting, and even time-consuming, to a minimum whilst still preserving an unruffled good humour and the verisimilitude of whole-hearted enthusiasm. Nevertheless the wise consultant endeavours to space out his morning counting himself fortunate if the time-table which allots an average of 45 minutes to each case leaves him a few minutes to play with at half-past one.

AT THE HOSPITAL

Lunch in such circumstances should wisely be a refreshment and not a meal, for he is due at hospital at 2 o'clock, and a rigid insistence on punctuality is an indispensable preliminary to ensure a peaceful afternoon. It is discourteous if not worse to keep sister and nurses in a ward in a state of tension and a number of students in increasing exasperation at kicking their heels about the corridors when they might be much more profitably and enjoyably engaged. If the out-patient department awaits his belated arrival, delay is even worse. Out-patient work has in any circumstances its dark side; and out-patient work conducted in a hurry with one eye on the clock and the other on an apparently inexhaustible stream of resentful and reproachful-looking humanity is the most fatuous formality—an affectation of usefulness

the most exasperating occupation which any educated man can undertake.

One of his numerous committee or subcommittee meetings at 5 o'clock is over in time for a consultation at 6, and after a visit to nursing homes he dines at 7.30 rather more hurriedly than he could wish or would recommend a patient, for he is due at 8.30 at a medical society to open a discussion, give an address, read a paper, or at least take part in the proceedings. That over, the night is still young. He has a variety of occupations from which to select. First, any correspondence must receive attention especially in regard to patients seen during the day. Figuratively the sun must not be allowed to set on uncompleted reports, or in a very short time the accumulation grows beyond manipulation. Following this there may be a book to review, examination papers to mark, a lecture to prepare, an article to write, material to be obtained for an address, or at least a page to be added to the inevitable monograph or text-book which is always in the course of preparation. And if and when there is nothing else, the current journals are always at hand to remind him that he is a teacher of medicine, and must be au fait with all that is progressing in his particular branch.

Success with him as with his colleague at the bar means "all roses and no bed." But, like the barrister, and unlike the general practitioner, his nights, if short, are generally undisturbed. From its relative infrequency the telephone at night has a particularly terrifying significance, for he knows that when he is wanted he is wanted very badly and very urgently. A sudden cardiac or pulmonary emergency, assistance in a case of severe hæmorrhage, the differential diagnosis of an acute abdominal from a non-surgical disease, a decision whether a patient's general condition will permit of an immediate operation. But generally he can rely on seven hours sleep, ample refreshment for the exhaustion of the preceding 17 hours, of which little more than three have been devoted to rest and refreshment. Eliminate the medical society meeting, the "free evening" affords scope for increased attention to the preparation of the lectures or the articles, or longer application to literature, and he may indulge himself with an extra half hour in bed.

CALLS OUT OF TOWN

Routine may, however, be violently disturbed by a call into the country. Decision in regard to the journey has to be rapidly made with such adjustment as is possible in the alteration. The comparative advantages of rail and road have to be balanced. If a train must be caught, less liberty is permissible, and as a consequence there is more disturbance. But experience teaches that beyond a certain distance the rail should be preferred for economy, both of time and discomfort. Incidentally the journey affords an opportunity to read en route, to correct proof sheets, or prepare the rough draft of an article or lecture. This sudden interference with routine may mean a complete upheaval or only a relatively slight dislocation, demanding the cancelling of a comparatively unimportant function or entertainment, making it still possible to fulfil all indispensable obligations with the inconvenience of a scrappy dinner or loss of sleep. It is unwise, no doubt, to undertake engagements which grossly interfere with regularity; but he who has girded on his sword prepared for the real hurly-burly does not hesitate to relegate his personal convenience and well-being to the background.

SO WHAT SORT OF A LIFE IS THIS?

The programme thus outlined suggests the superman or robot, a human machine whose entire life consists in selecting and disposing of as many of the innumerable duties he has to perform as is possible for a creature of flesh and blood; and the obvious question arises, is there no provision for leisure, for recreation, for exercise, even for rest? There is room for all of these: for sufficient exercise and leisure to avoid staleness and preserve physical fitness; for sufficient social intercourse and recreation to avoid priggishness and narrowness of outlook.

Only, these have to be regarded as the details which fill in the interstices or, if and when they occur, the larger gaps which may suddenly and unexpectedly present themselves. They are indefinitely elastic; they must be fitted in when occasion arises, rather than when inclination would invite.

Perhaps it might be objected that the life of the established consultant is a very different thing from that of the junior who often works for bread for ten years, for ten years more for bread and butter, and who in another ten may obtain cakes and ale. Who for weary years must be content to take his place in the line of those eleemosynary bread-casters on the look-out for the return of piles of hot-buttered toast, and who must often accept for consolation the view of one who was certainly no flâncur in his own sphere of activity, that "to travel hopefully is a better thing than to arrive, and that the only true success is to labour."

But what career is without its disadvantages? With all its early disappointments and inevitable anxieties, the life of the consulting physician is probably the most attractive open to any professional man. Granted a genuine interest in medicine, an energetic temperament, good health and, as has been more than once indicated, a fair measure of self-discipline, he may confidently anticipate not wealth but an income reasonably compatible with his position, and permitting all which that position should demand. His practice is for the most part under the best and most agreeable conditions; the constant stimulation by critical colleagues and students strop the razor edge of his mentality. In the centre of progress every day has fresh interest. And he wakes every morning with pleasant realisations that, so far as is possible to any medical man, his work will combine the minimum of routine and drudgery with the maximum of adventure.

INFECTIOUS DISEASE

IN ENGLAND AND WALES DURING THE WEEK ENDED DEC. 10TH, 1932

Notifications.—The following cases of infectious disease were notified during the week:—Small-pox, 15 (last week 27); scarlet fever, 2207; diphtheria, 996; enteric fever, 32; acute pneumonia (primary or influenzal), 1146; puerperal fever, 37; puerperal pyrexia, 87; cerebro-spinal fever, 24; acute poliomyelitis, 5; acute polio-encephalitis, 1; encephalitis lethargica, 9; dysentery, 17; ophthalmia neonatorum, 84. No case of cholera, plague, or typhus fever was notified during the week.

The number of cases in the Infectious Hospitals of the London County Council on Dec. 13th-14th was as follows:—Small-pox, 58 under treatment, 3 under observation (last week 56 and 5 respectively); scarlet fever, 1916; diphtheria, 1702; enteric fever, 12; measles, 236; whooping-cough, 410; puerperal fever, 28 (plus 7 babies); encephalitis lethargica, 229; poliomyelitis, 5; "other diseases," 165. At St. Margaret's Hospital there were 14 babies (plus 7 mothers) with ophthalmia neonatorum.

Deaths.—In 117 great towns, including London, there was no death from small-pox, 2 (1) from enteric fever, 13 (1) from measles, 9 (0) from scarlet fever, 25 (4) from whooping-cough, 42 (6) from diphtheria, 50 (14) from diarrhœa and enteritis under two years, and 68 (6) from influenza. The figures in parentheses are those for London itself.

Croydon reported a death from enteric fever. Measles accounted for 3 deaths at Birmingham and at Leicester, 2 at Liverpool. Three deaths from scarlet fever were reported from Sunderland, 2 from Bradford. Eleven deaths from diphtheria occurred at Hull, 6 at Liverpool, and 4 at Manchester. Influenza was credited with 4 deaths each at Liverpool, St. Helens, and Stoke-on-Trent.

The number of stillbirths notified during the week was 296 (corresponding to a rate of 49 per 1000 total births), including 42 in London.

CORRESPONDENCE

ALBUMINURIA AND PYELITIS IN PREGNANCY

To the Editor of THE LANCET

SIR,—Your last issue contains an interesting paper by Mr. J. V. O'Sullivan on Albuminuria of Pregnancy and its Treatment. Although none of the results have yet been published, since 1927 we have been carrying out a similar investigation at University College Hospital on cases of albuminuria of pregnancy, and have been able to admit the patients to the antenatal ward for a complete investigation. In addition, it has been possible to "follow up" the majority of these patients for a number of years, thus enabling us to classify accurately the group to which they belong. There are a few important points in which our findings differ from those of Mr. O' Sullivan.

1. The patients who attend the "toxæmia clinic" are those where albumin is found in a catheter specimen of urine. At the London Hospital, the patients transferred were those where "albuminuria had been found when the urine was tested by boiling a portion of the specimen passed naturally." Sixty-seven of these patients were transferred at the London Hospital, and in all of them albumin was found in a catheter specimen. This is contrary to our findings, where quite a proportion of cases have no albumin in the subsequent catheter specimen. I have seen 1 per 1000 (Esbach) albumin from a specimen passed naturally due entirely to a vaginal discharge.

2. Mr. O'Sullivan divided his cases into two groups:

(i) *Albuminuria of pregnancy.*—Patients allotted to this group had albumin in ordinary and in catheter specimens. The catheter specimens showed no evidence of infection. The blood pressures were variable (21 cases).

(ii) *Pyelitis of pregnancy*, or more correctly, *infection of the genito-urinary tract*, in which albumin, pus, and organisms were present in catheter specimens. This group was subdivided into (*a*) those with normal blood pressure (36 cases), and (*b*) those with a systolic blood pressure above 140 mm. Hg (10 cases).

This grouping depends on the urinary findings alone. It would be better to do a complete investigation and then place the patients in the appropriate group to which they belong. It is recognised that in the early stages chronic nephritis is difficult to diagnose, and that it may be necessary for a complete (clinical, chemical, and bacteriological) investigation to be made before a diagnosis can be arrived at. Mr. O'Sullivan was unable to have a complete investigation of all his cases, but he says that in view of the low results in the urea-excretion tests (in four out of the six cases examined) and the presence of red blood-cells in catheter specimens in nine "albuminuria" and 31 "pyelitis" cases the possibility of a low-grade nephritis cannot be dismissed. This being so in such a large number of cases in so small a series, Mr. O'Sullivan's classification seems scarcely adequate, and the conclusions he draws not quite justifiable. At University College Hospital for the four-year period from Jan. 1st, 1927, to Dec. 30th, 1930, 84 patients with antenatal "pyelitis" and 251 patients with pregnancy albuminuria or chronic nephritis associated with pregnancy were investigated. In only eight cases was "pyelitis" associated with pregnancy albuminuria or chronic nephritis. In eight hundred specimens of urine from antenatal patients which I investigated, the percentage of *bacteriuria* was only ten, and it was not more frequent in pregnancy toxæmia than in normal pregnancy. I have also shown that the percentage of bacteriuria may be as high as 90, unless special precautions in procuring and examining the catheter specimens are observed.

Our results, therefore, differ from those of Mr. O'Sullivan. In our series, pregnancy albuminuria was three times as frequent as antenatal pyelitis, and the association of the two conditions was infrequent—8 out of 251, or roughly 3 per cent.

3. A further point of difference between our findings and those of Mr. O'Sullivan is the almost complete absence of œdema, except of legs and ankles in the cases of pyelitis of pregnancy. In only one of our 84 antenatal cases of pyelitis was marked œdema present, and in this the œdema was due, in our opinion, to the associated anæmia. Again (excepting the eight cases diagnosed as albuminuria+pyelitis), this was the only one in which the amount of albumin present was more than could be accounted for by the pus alone. It is rare in our experience to find more than 1 per 1000 albumin (Esbach) in cases of pyelitis. Further, in none of the cases of pyelitis alone was the blood pressure raised.

4. Mr. O'Sullivan's second conclusion that cases of "pyelitis" were more liable to puerperal morbidity than cases of "albuminuria" may be explained by the fact that pyelitis of pregnancy very rarely—in only 2 of our 84 antenatal cases—clears up during pregnancy, and in only 49 per cent. does the urine subsequently become sterile. This is a point of some importance, for these cases are often symptomless, and in the past have not infrequently been discharged from hospital as "well" patients.

I am, Sir, yours faithfully,

GLADYS H. DODDS.

University College Hospital Medical School,
Huntley-street, W.C., Dec. 19th, 1932.

To the Editor of THE LANCET

SIR,—In your leading article last week on the colon bacillus in pregnancy you drew attention to the apparently different findings of Mr. O'Sullivan and myself regarding the blood pressure in the "pyelitis" of pregnancy. What I tried to bring out in my lecture was that "pyelitis" of pregnancy is a toxæmia which develops typically in the middle three months and is quite different in almost every respect from "albuminuria" of pregnancy, which develops in the last three months of pregnancy. My experience is that the patient in whom stasis develops during pregnancy is liable to develop pyelitis, and that in cases of "albuminuria" there is little stasis in the ureters, so that any one patient is unlikely to develop both toxæmias in the same pregnancy. In cases of undoubted pyelitis of pregnancy, even where bilateral, the blood pressure is always low and œdema is not seen even where the condition is so severe as to cause death. In these cases the lesion in the kidneys is usually a pyelonephritis with abscesses in the kidneys.

Undoubtedly during pregnancy one comes across patients with pyuria and raised blood pressure, such as is described by Mr. O'Sullivan, but before accepting these as cases of "pyelitis" of pregnancy, one would require to prove that the infection was coming from the upper urinary tract and not from the bladder, and that the organisms were producing the lesion in the kidney responsible for the œdema. It seems much more likely that these are cases of "albuminuria" of pregnancy or nephritis with an accompanying pyuria.—I am, Sir, yours faithfully,

Glasgow, Dec. 19th, 1932. DUGALD BAIRD.

A WELL-DESERVED APOLOGY

To the Editor of THE LANCET

SIR,—On Dec. 14th a person who called at my consulting-rooms was told I was in bed with phlebitis and could not be given an appointment for some time. The next day there appeared in a daily paper an article of the type from which we, as a profession, urgently require protection. Two days later the attached apology was printed.

"Our attention has been called to the references made in the article published in the *Daily Express* on Dec. 15th to the recent unfortunate illness of Sir Harold Gillies. It is suggested that these references are open to the construction that Sir Harold Gillies is seriously and incurably ill. This is not so, and we had no intention of suggesting it. We are pleased to state that we are informed that Sir Harold Gillies is recovered, and hopes to resume his practice again next week. We wish to express our regret for any annoyance or inconvenience that may have been caused to Sir Harold Gillies by the article referred to.

"It is perhaps unnecessary to state that the whole article, which was of a laudatory character, was published unknown and without reference to Sir Harold Gillies."

I have to thank the Medical Defence Union and their solicitor, Mr. O. Hempson, with whom I communicated immediately, for this prompt result.

Satisfactory as this is, it can undo only a small portion of the damage done, and my medical colleagues agree with me that it is a pity that counsel felt constrained to advise against further action of an admonitory nature. If I thought that a modification in the law of libel or an improvement in the ethical standard of journalism might result I should have felt inclined to proceed despite counsel's opinion. It is perhaps hoping too much, but possibly a strong body of journalists could lay down ethical rules which would govern press publications defining those detrimental to the best interests of professions such as the medical and legal, and departure from which would be condemned in no uncertain way. Help from the "closed" professions in framing these rules of press publications would readily be forthcoming.

The present intense and bitter distrust amongst doctors of the power of the press is entirely due to the latter, and it is "up to them" to "put their house in order." Grave and frequent unjust resentment between members of the medical profession would thus be avoided, and a better feeling between journalism and the "closed" professions established, much to the advantage of the general public to whom both professions owe their allegiance.

I am, Sir, yours faithfully,

Harley-street, W., Dec. 19th, 1932. H. D. GILLIES.

RADIOTHERAPY IN BRONCHIAL ASTHMA

To the Editor of THE LANCET

SIR,—Prof. van Leeuwen's communication to the Royal Society of Medicine provoked an interesting discussion on the relation of bronchial asthma to vasomotor affections of the nose, but it was admitted that nasal treatment had proved disappointing. From your annotation of Dec. 10th (p. 1287) it is not clear whether any reference was made to the treatment by radiotherapy of the victims of this malady. In children, by suitable exposure to the rays of a mercury-vapour lamp, attacks may be reduced from daily occurrence to an incidence of one in 2–3 months, with coincident improvement in general health. In the adult, light treatment does not have the same effect, but relief may often be obtained from X rays. Some years ago S. Gilbert Scott showed that the best results were obtained by treating the abdomen rather than the chest, and by pushing the treatment until slight radiation sickness was produced. It is true that application to the chest sometimes succeeds, but I have recently had the opportunity of trying X rays to the abdomen in a case after chest application had proved unsuccessful; the result has been to give great relief. As more than a year elapsed between the courses, late results from the first are practically excluded.

It has been suggested that such radiotherapy is really only a form of protein shock. There is probably some truth in this view, but it can scarcely explain why abdominal application should be more successful than treatment to the chest. Dr. Scott's view is that the adrenals are concerned; there is also the possibility that digestive processes are modified. However this may be, X rays are worth trying in any case which proves obstinate to ordinary methods. The good effects, while often not permanent, may last for many months, and the dosage can be safely repeated. Many patients are thus enabled to follow their ordinary occupations who would otherwise be incapacitated.

I am, Sir, yours faithfully,

F. HERNAMAN-JOHNSON.

Brook-street, W., Dec. 14th, 1932.

FRACTURES OF THE SPINE WITH PARAPLEGIA

To the Editor of THE LANCET

SIR,—For the purposes of collective investigation, and in order to assess the value of the treatment, I should be much obliged if any surgeon who has attempted the manipulative reduction of fractures and fracture-dislocations of the spine with paraplegia would be good enough to let me have brief notes of the cases, whatever the results may have been.

I am, Sir, yours faithfully,

Liverpool, Dec. 17th, 1932. R. WATSON JONES.

WANTED FŒTAL ADRENAL GLANDS

To the Editor of THE LANCET

SIR,—Perhaps you will allow us to make an appeal to obstetricians and others for material in connexion with some research now in progress in this department.

The cells of the adrenal cortex bear a strong resemblance to those of the corpus luteum. Five-sixths of the adrenal cortex of the fœtus undergoes, after birth, a degeneration which begins approximately at the same time as parturition. Experiments are now in progress to investigate the possible relations of these two processes. For this purpose adrenal glands are required from fœtuses over four months old—preferably those obtained by Cæsarean section. To be of use the glands must be removed as soon as possible; cut up and placed immediately in twice their volume of 95 per cent. alcohol, if possible in a refrigerator. Details and materials will be sent to anyone interested.

We are, Sir, yours faithfully,

SAMSON WRIGHT,
A. T. WILSON.

Physiology Dept., The Middlesex Hospital Medical School, W., Dec. 19th, 1932.

HOSPITAL DESIGN

To the Editor of THE LANCET

SIR,—In defending his profession against my criticisms Mr. Fairweather has concluded that I can neither read a site plan nor understand architect's designs. Why must architects assume their clients are so ignorant? Had he stated that I was incapable of criticising the planning of the proposed R.I.B.A. building I should have agreed, as I have not interested myself in the functions of such an institute, but 15 years' work in hospitals can be a profitable experience in understanding their functions, even to those who are not architects. Hence the plea in the final sentence of my last letter, which I think Mr. Fairweather has more than justified by his attitude.

I hold to my general criticisms of the premiated plans; the accepted design is certainly compact, too much so, in fact; some of the specified areas, of which the out-patient hall is a good example, are small. The costing, too, has been queried in the competition report in the *Architect and Building News*, and in correspondence in the *Builder*. As regards a more extended type of plan, I have been shown one in which the expense of excavation and underbuilding has been avoided by constructing the ward blocks on piles taken down to point foundations.

I still consider the stipulation of beds at right angles to the walls to be a retrogressive condition, even if the clients did not like the other type I mentioned; unless, of course, Mr. Fairweather thinks architectural invention has stopped at these two methods. And anyway, why give the second prize to a plan characterised by the disliked method of bed arrangement? I am not convinced by the decision at Birmingham, and many prominent architects will agree with me here.

I would frankly rather encourage the experimentalists if there is ever to be any advance, and though the Scarborough competition, to my mind, registers no forward step, I believe there are many architects in the country willing and able to look ahead, and it will be all to the good if medical men will diligently interest themselves in such advances.

I am, Sir, yours faithfully,

HUGH GAINSBOROUGH.

Park-crescent, W., Dec. 19th, 1932.

EPISTAXIS WITHOUT TELANGIECTASIA

To the Editor of THE LANCET

SIR,—I was much interested in Dr. Wordley's paper (Dec. 17th, p. 1331), but I cannot agree with him that the cases he records can be differentiated from that type of familial telangiectasia first described [1] by Osler. In this condition multiple telangiectases of the skin and mucous membranes are inherited as a simple Mendelian dominant; they are particularly well seen on the face but are almost always present on the buccal and nasal mucosa as well as on the tongue, conjunctiva, and rectum. Although the spider nævi of the face are sometimes several millimetres in diameter they may never be larger than a pin-head. I have no doubt that the oozing spots seen on the nasal septum of Dr. Wordley's case were in point of fact tiny nævi.

Writing on the subject in 1929, S. Erdheim [2] referred to 45 families recorded in the literature as suffering from this condition, but we have seen four quite new and separate families in Leeds in the past two years and I am sure that this disease is a not uncommon cause of recurrent epistaxis, and indeed of other forms of bleeding especially when familial.

I am, Sir, yours faithfully,

HUGH G. GARLAND,
Medical Registrar, Leeds General Infirmary.

Dec. 16th, 1932.

[1] Johns Hopkins Hosp. Bull., 1901, xii., 333.
[2] Brit. Jour. Derm. and Syph., 1929, xli., 55.

THE SOCIETY FOR THE PROVISION OF BIRTH CONTROL CLINICS

To the Editor of THE LANCET

SIR,—I should like to endorse the excellent letter from Lord Gerald Wellesley in your issue of Dec. 17th on the need and demand for instruction of medical students in contraceptive methods. It may interest your readers to know that demonstration courses have been held during the past year at the North Kensington Women's Welfare Centre (12, Telford-road, Ladbroke-grove, W.10) which have been regularly attended by fourth-year students from a teaching hospital in the vicinity. Lectures and demonstrations were also given to students from the West London Post-Graduate Medical College, and others, and these are being continued at regular intervals.

Those who are responsible for the voluntary birth control clinics hope that the time is not far off when hospitals will provide the teaching for which there is undoubtedly a great demand. In the meantime, the decision of the Society for the Provision of Birth Control Clinics to arrange courses at its affiliated clinics is very welcome.

I am, Sir, yours faithfully,

W. ALEXANDER HISLOP, M.B.

Holland Park-avenue, W., Dec. 19th, 1932.

SCOTLAND

(FROM OUR OWN CORRESPONDENT)

RETIREMENT OF SIR E. SHARPEY-SCHAFER

AT the last meeting of Edinburgh University court Sir Edward Sharpey-Schafer intimated that he would retire from the chair of physiology at the end of the academic year. The announcement was received with great regret. He is, I suppose, the doyen of British physiology. He has been so active, not as a teacher and research worker only, but as a recognised master in the work of other societies, that it is difficult to enumerate all his lines of activity. When he was appointed he was acclaimed as the man most fitted for a distinguished chair in a university of wide culture and scientific traditions; and his work in Edinburgh has more than justified the selection. Schafer has been a name familiar now to many generations of students, and his teaching books laid out with great exactness the foundations of his vast subject. To-day, when the medical curriculum is being recast from the standpoint of biology and physiology, it is recognised that the modern courses he established have all the features of sound pioneer work. What strikes one most about him is the sustained vigour of brain shown in so many sections of his science. As president of the Royal Society of Edinburgh he always reacted as a big mind sensitive to movement and advance. He has shown that an expert in the best science of the nineteenth century can also be an expert in the sciences of the twentieth, and maintain, through all the differentiations of detail, a continuity of scientific method.

OBITUARY

EDWARD TREACHER COLLINS, F.R.C.S.

CONSULTING SURGEON, ROYAL LONDON OPHTHALMIC HOSPITAL

To the great regret of a large circle of friends and patients Mr. Treacher Collins, the distinguished ophthalmic surgeon, died in a London nursing home on Wednesday of last week. The event has been announced in our columns.

Edward Treacher Collins was born in 1862 and was the second son of the late Dr. W. J. Collins, a London physician, by his wife, the daughter of Mr. Edouard Treacher; he was a younger brother of Sir William Collins, the ophthalmic surgeon, formerly a prominent Liberal Member of Parliament and chairman of the London County Council. Treacher Collins was educated at University College School and entered the Middlesex Hospital in 1879, where he took in 1883 the London conjoint diplomas and the L.S.A., and formed an early decision to make of ophthalmology his career. He was elected house surgeon at Moorfields (the Royal London Ophthalmic Hospital) in 1884 and was interne at the hospital for three years, being later in 1887 appointed pathologist and curator of the museum. This post he held until 1895 when, having taken the F.R.C.S. Eng. in 1890, he was elected surgeon to the hospital, a post which he held for 27 years. In 1922 he was elected consulting surgeon, so that his period of unbroken service at Moorfields extended to just upon 50 years. During every phase in his connexion with the institution he was a pillar of strength both to its organisation and its scientific development, as for a considerable period he acted as secretary to the medical council, while he played a great part in the removal of the hospital from Eldon-street, Moorfields—hence its popular name—to the present site in the City-road.

MR. TREACHER COLLINS

[Photograph by L. C. Smith

In the year of his election to the full staff, Treacher Collins married Hetty Emily, daughter of the late Colonel Jasper Herrick, of Hawk's Bay, New Zealand, and the couple spent an adventurous honeymoon in Ispahan, where the bridegroom had been summoned to treat Prince Zill-us-Sultan, the eldest son of the reigning Shah. Collins recorded the events of this journey in an interesting little book entitled "In the Kingdom of the Shah" and received from the Shah the decoration of the Lion and the Sun. On his return he was a marked man, and as his scientific merits were outstanding, he soon acquired an important consulting practice, rising to real eminence in his specialty and finally enjoying an international reputation. He was appointed Hunterian professor at the Royal College of Surgeons and delivered there in 1893 and 1894 lectures on the anatomy and pathology of the eye, which were published in these columns (vide Dec. 8th and 22nd, 1894). They formed the substance of a treatise "Researches into the Anatomy and Pathology of the Eye" which was published in 1896, and was recognised at once as an original and valuable contribution, doubly original in that many of the illustrations were drawn by the author himself. At the College also in 1900 he was Erasmus Wilson lecturer and delivered three discourses on the more recent additions to the Hunterian Museum, a task for which his long work as pathologist to Moorfields fitted him exceptionally.

He obtained also the Middlemore prize founded by the late Richard Middlemore, F.R.C.S., and given, at the discretion of the British Medical Association, for the best essay in any department of ophthalmic medicine and surgery. A series of important appointments followed. He was appointed visitor for ophthalmic surgery to the Metropolitan Asylums Board at the ophthalmic school in Swanley and also ophthalmic surgeon to the Belgrave Hospital for Children. In 1915 he was the recipient of the Nettleship prize given by the Ophthalmological Society of the United Kingdom in recognition of researches into diseases of the eye; in 1917 he was elected president of the society; while seven years later he occupied the same important chair, being the first ever to be twice president of the society. In 1921 he delivered the Bowman lecture before the society. He also was for a time ophthalmic surgeon to Charing Cross Hospital and the Oxford Eye Hospital. In 1917 and 1918 he was president of the Council of British Ophthalmologists, and in 1924 he delivered the Montgomery lecture, before the Royal College of Surgeons in Ireland, on the evolution of the pupillary reactions. His long record of public services was not yet complete, for in 1929 he presided to the universal satisfaction over the International Congress of Ophthalmologists held in Amsterdam and the Hague. The Congress was practically guided by the rules and by-laws drawn up by the committee which met at Scheveningen under Collins's chairmanship in 1927.

Treacher Collins was not a voluminous writer, but what he wrote was worth while. His early book on the anatomy and physiology of the eye was followed by a useful treatise the Pathology and Bacteriology of the Eye in 1911, which was republished in 1925 in collaboration with Mr. Stephen Mayou. The work was not intended to be either encyclopædic or final, and in certain directions developments of technique still in their infancy went unnoticed; but within the scope planned it proved a valuable manual for ophthalmic specialists. He was the author also of an interesting work entitled Arboreal Life and the Evolution of the Human Eye, while in 1929 came his History of Moorfields Eye Hospital. In this work he traced the development of Moorfields from 1805, when the London Dispensary for Curing Diseases of the Eye and Ear was opened in Charterhouse-square, with Astley Cooper as its godfather, an event which practically marked the beginning of ophthalmology as a surgical specialty. The book gave thumb-nail sketches of many of the surgeons to whom the world-wide reputation of the hospital has been due, and was enriched by portraits of many notable members of the past staff; the author's modesty in omitting a portrait of himself, when his term of office

had already lasted nearly 30 years, was generally regretted.

In early life Treacher Collins played an excellent game of Rugby football, while he was a fearless rider, following the Queen's buck-hounds as his father had done before him; and like his father he had marked artistic gifts, for, as has been mentioned, he was able to illustrate many of his own researches, while he made sketches in oil in the countries which he visited. He leaves two children, a son, Mr. Leslie Herrick Collins a barrister, and a daughter, Miss Christabel Collins, who is a devoted worker for the Invalid Children's Aid Association.

Sir John Parsons writes: "British ophthalmology has reason to be proud of the names of its votaries who have attained world-wide recognition as pioneers in the science and art of this branch of medicine. The name of Treacher Collins will be unanimously added by those competent to judge to the list which includes such masters as William Mackenzie, Bowman, Nettleship, Critchett, Priestley Smith (still happily with us), and others. Born of a non-conforming stock, he was innately imbued with an acutely critical outlook and indomitable perseverance. At an early stage in his professional career he became associated with Moorfields Eye Hospital, at that time the Mecca of ophthalmologists from all parts of the world, and to that fact must be ascribed his life-long enthusiasm for ophthalmology, and his never failing love of his alma mater. Various as were his tastes and interests —and they were many—they were but the recreations which enabled him to return with renewed vigour to his all-absorbing tasks. In those early days Moorfields was unique, at any rate in English-speaking countries, in emphasising the importance of pathology as the basis of a scientific knowledge of diseases of the eye, and Collins's appointment to the post of curator of the museum and pathologist to the hospital was the determining factor in his devotion to pathological research which persisted throughout his life. Research workers may be broadly divided into two classes, those who work solely for the love of discovery, and those who work always with one eye fixed upon the application of new truths to utilitarian ends. Such a contrast is pre-eminently to be seen in Thomas Young and Donders. Treacher Collins belonged to the latter class. Many of his early researches were devoted to a minute investigation of the anatomy of those parts of the eye specially concerned in intra-ocular operations. Others dealt with the anatomical concomitants of various types of secondary glaucoma and their influence upon successful operative treatment. The wealth of pathological material at Moorfields, however, early interested him in more recondite subjects, as, for example, congenital malformations. Collins was endowed with an exceedingly methodical mind. As each new problem was successively attacked it underwent a long period of gestation. Every available particle of evidence was sought out and brought into correlation with his own original observations. Plausible theories were carefully examined, and the pros and cons submitted to the touch-stone of a scientific agnosticism which is only too rare in these days of relativity and indetermination. Ultimately what appeared to Collins to be the most plausible theory was definitely and finally adopted. Usually, but not always, most of his fellow workers agreed with his conclusions. Occasionally fresh evidence arose which seemed to some to refute the favoured hypothesis. But Collins was a valiant fighter, and when he had once made up his mind was difficult to move. No one could possibly doubt his enthusiasm and absolute honesty, but when he had solved a problem to his own satisfaction he almost seemed to resent reopening the question. This attitude of mind resulted in clearly crystallized views upon innumerable ophthalmic problems, and as he was generally right, made him an excellent teacher, for some degree of dogmatism is essential to a good teacher. Probably no one of recent years has had a more widespread influence on the teaching of the fundamental pathological data of ophthalmology than Treacher Collins, and, from the purely scientific point of view, it is as a pathologist that he will live in the history of British ophthalmology.

"Everything, however, which conduced to the recognition and advancement of his subject appealed to him and stirred him into strenuous and dogged activity. After Moorfields Hospital, the Ophthalmological Society of the United Kingdom claimed most of his affection. He struggled hard and effectually for the retention of its identity when it was threatened with incorporation in the Royal Society of Medicine. But his ophthalmic interests were world-wide, and he was as much persona grata in the United States and foreign countries as among his own countrymen. When, after the war, it was impossible to gather the nations together, he insisted upon the next best thing and was the prime moving spirit of the English-speaking Conference. When better days came he was with one accord selected as the President of the International Congress at Amsterdam. He was equally active in those ethical and semi-political aspects of ophthalmology which are not catered for by the scientific societies, and when the suggestion of the Council of British Ophthalmologists for dealing with these problems was put before him he heartily supported it, and became its president.

"As a man, he was the soul of honesty and the enemy of humbug, a steadfast friend and no time-server. With a somewhat 'dour' exterior, he had a fine sense of humour, and made an ideal travelling companion."

ROBERT GEORGE ROBSON, M.D. Edin.

Dr. R. G. Robson, who died on Nov. 30th, was born at Fortrose 61 years ago, his father being George Robson, a well-known Scottish divine. He received his education at Inverness Academy and George Watson's, Edinburgh, and his medical education at Edinburgh University. After serving as house surgeon in Edinburgh and studying in Vienna, he took his M.D. and went to India, where he was attached to the Scottish Mission. He rendered valuable service during the famine of 1900, both in organising rescue plans and in the actual treatment of the sufferers, and during his life in India he was always actively associated with civil and social administration. He acted as chairman of the municipality of Ajmer for some years, where he was connected with the planning of the town water-supply, the building of schools and hospitals, and other schemes. In addition to these activities he was in charge of the mission hospital, where he showed his ability as a surgeon and gained the confidence and affection of his patients. His services were recognised in 1916 by the award of the Kaisar-i-Hind gold medal. On retiring from India he took up practice in Deptford, where he soon became a well-known figure. It was when returning from his surgery on his bicycle, which he could never be persuaded to give up, that he met his death, which was instantaneous. He leaves a widow, and his son, Dr. John A. Robson, is a member of the medical profession, to whom the sympathy of all is extended.

JOHN GLAISTER, M.D., LL.D. Glasg., F.R.S. Edin.

WE regret to announce the death of Dr. John Glaister, emeritus professor of forensic medicine in the University of Glasgow, who died on Sunday last, Dec. 18th, from influenza. A few hours later his wife, Mary Glaister, died from the same cause. Both were 76 years of age.

John Glaister was born at Lanark, in 1856, being the eldest son of Joseph Glaister of that city, and his wife Mary Weir. He was educated at the local grammar school and received his medical training at the University of Glasgow, where he was a successful student, obtaining the distinction of medals in each subject of the curriculum; in particular he showed an early aptitude for that branch of science in which he afterwards became an outstanding figure, for he was a first prizeman in forensic medicine and pathology. In 1877 he obtained the Scottish triple qualifications, and in 1879 he graduated as M.B. in the university. Two years later he was elected F.R.F.P.S. Glasg., subsequently proceeding to the M.D. degree.

PROF. GLAISTER

[Photograph by Lafayette

Glaister had not long to wait for public recognition, as in 1881 he was appointed lecturer in medical jurisprudence and hygiene in the medical school of the Royal Infirmary, and at the same time as a police divisional surgeon. In 1888 he was chosen to fill the chair of public health and medical jurisprudence in St. Mungo's College, and ten years later he was elected professor of forensic medicine in the University of Glasgow. This appointment he held for 33 years, being elected emeritus only last year, and during his tenure of office he became one of the foremost exponents in the kingdom of his subject. His discourses were appreciated by the students because not only were they clear and informative, but they had behind their teaching wide practical experience, for Glaister was an expert witness whom the courts of law had learned to respect for his shrewdness and accuracy. He became medico-legal examiner in Crown cases for the city of Glasgow, and in this connexion his name was prominent in several sensational State cases, notably in that of Oscar Slater, where, it will be remembered, a grave miscarriage of justice was eventually confessed to. Prof. Glaister made the autopsy on the body of the victim and testified to the fatal external and internal lesions, but his evidence as to the alleged weapon and the condition of Slater's garments was a model of fairness, and cross-examination in the interests of the prosecution entirely failed to shake his opinion.

By temperament Glaister was marked out as an examiner, and his services were in constant demand by examination boards. He was at different times an examiner in medical jurisprudence and public health at his own university, at the Faculty of Physicians and Surgeons of Glasgow, and at the Royal Scottish Colleges, and recurrent appointments proved his aptitude for the duties. He had vast personal knowledge and his information was perfectly orderly. These things were notably displayed in his well-known text-book, Medical Jurisprudence, Toxicology, and Public Health, the fifth edition of which appeared only last year, written in collaboration with his son. In the steady course of revision this book has become a universally appreciated treatise on its subject. The details of recorded cases are particularly valuable to the medico-legal expert, whose testimony, often based upon elaborate analysis of obscure circumstances, has to be given with the possibility of the death penalty hanging on its result. This book will remain for many years a trustworthy work of reference.

"With the death of John Glaister," Prof. Sydney Smith writes, "there has disappeared one of the outstanding personalities in Glasgow and one of the foremost of British medical jurists. For over 50 years Glaister has been connected with the teaching and practice of forensic medicine. His work in Glasgow as divisional police surgeon for a great number of years gave him a unique insight into the various aspects of crime and the results of violence. Although his experience was confined to Glasgow, he made full use of the wealth of material there to build up a reputation in medical jurisprudence which is recognised throughout the country. For more than 30 years Glaister was the principal witness for the Crown in all the leading criminal cases in Glasgow; his testimony, always precise and free from ambiguity, has been of the utmost importance in the administration of justice and has commanded the respect of both bench and bar. He published comparatively little in the medical press, but his book on medical jurisprudence, now in its fifth edition, pays tribute to his erudition and wide experience, and his monograph on gas poisoning has been of great value to the medical profession.

"Glaister had a strong personality, and though somewhat rigid and unbending in his views was able to obtain the respect and affection of his students both in the faculty of medicine and in the faculty of law. His death is a great and irreparable loss to the medical and legal professions in general, and in particular to the University and city of Glasgow, where by his zeal and integrity he has built himself an imperishable monument."

Prof. Glaister and his wife had four daughters and two sons, one of whom has recently succeeded his father in the chair of forensic medicine at Glasgow, having temporarily filled a similar position in Cairo. The other son is Dr. Joseph Glaister, who practises in this country, while one of the daughters is the wife of Prof. Harold Woodruff, director of the department of bacteriology in the University of Melbourne.

MOTOR ACCIDENTS AT STOURBRIDGE.—At the recent annual meeting of the Corbett Hospital, Stourbridge, it was stated that over 60 motor accident cases were admitted, 12 of which proved fatal. Not one of these patients gave a penny to the hospital, and it was very unusual at any time for any such patients to express thanks to the doctors.

PARLIAMENTARY INTELLIGENCE

NOTES ON CURRENT TOPICS

Housing and Slum Clearance

In the House of Commons on Dec. 7th Mr. BRIANT moved:

"That this House urges the Government to use its influence with local authorities, and employ any other practicable means, to speed up the building of dwelling-houses, particularly for persons on low wages, and the clearance of slums; and it further records its opinion that such an effort would be the most useful and practical means of reducing the present excessive unemployment in the building and ancillary industries."

He said it was estimated before the war that 3,000,000 people were living in insanitary conditions. The war came with more than four years' arrest of all housing. Then they had the annual requirement of roughly 100,000 houses to supply the needs of the increased population and also to take the place of houses no longer fit for habitation. He thought he would not be far wrong in saying that on a low estimate at least 800,000 more houses were required to replace those which were worn out and to remove from houses already overcrowded some of the families and give them adequate and decent accommodation. He had always believed that next to the provision of food, housing was the main essential for health, comfort, and happiness. The Rent Restrictions Committee stated that it was disappointed with the number of houses built for the poorer people. That was obviously the greatest difficulty with which they were faced. In London there were at least 100,000 people living in basements. They would not have been allowed to remain in these basements by the medical officer of health were it not for the fact that the authorities dare not turn them out because there were no houses for them to go to. The debt they owed to the medical officers in England could never be repaid. They had given very good advice in regard to housing. The London County Council in 1930 drew up a five-year scheme. The programme provided for the building of 34,000 houses in the next five years, costing £21,000,000. In 1931 the actual expenditure was £3,000,000, and in 1932 the estimated expenditure was £1,650,000. At that rate of progress at the end of five years only about £8,600,000 would have been expended out of the £21,000,000 set down in the programme. That seemed to forecast a dangerous arrest of housing in London.

FALSE IDEA OF ECONOMY

He feared, Mr. Briant continued, that many local authorities all over the country had interpreted the Government's advice with regard to economy in a similar way. In London the number of people living more than three in one room had increased in the last ten years. That showed that housing policy had not touched the very class which most required accommodation. He was not satisfied that the houses with which he was particularly concerned would be built without subsidy. He was not content to run any risk of arresting the building of those houses which were so badly needed because some people might have the idea that the subsidy interfered with the energy of private builders or it might be with local authorities. The medical officer of health for Glasgow produced a few years ago some startling figures showing that in one-room tenements the death-rate of children was exactly three times that of children who lived in three-roomed tenements, while the death-rate of those living in two rooms was exactly twice that of those who lived in three rooms. Until a child reached the age of 14 it was not a producer. Therefore the nation was spending millions of pounds on education and care and nurture of children who never reached the producing age. He could not agree with the Government in regard to the Rent Restriction Act. He hoped they would think twice before removing the restriction on some of the houses. If houses were decontrolled many poor families would have to leave their houses because they could not afford to pay more rent. The already overcrowded areas would become further overcrowded. The nation spent millions of pounds on health services. In the hospitals children and adults received the finest medical and nursing service, but there was not a doctor in a hospital who did not know that when he had patched up a child or an adult he was sending them back to conditions which produced the sickness or the disease which they had attempted to cure. That was a waste of money in the health services, because the work of the medical profession and the nursing profession went for nothing or next to nothing if the people had to live under conditions which might be described as deadly.

"BEST WAY TO TACKLE SLUMS"

Sir PERCY HARRIS, in seconding the motion, said his own view was that the best way to tackle slums was to build houses—not houses crowded round the slums—and the slums would cure themselves. It was no use pulling down houses if at the same time they were not building more. That only produced a shifting of the population, and overcrowding took place somewhere else. The real need was not houses for sale but houses to let. The time was not ripe, and would not be for many years, for the State or the local authorities to stand aside and leave the whole responsibility for housing to private enterprise. He asked the Government if they were putting forward a new housing policy not to break completely with the past but to see that their policy was planned also for the future.

Miss PICKFORD said that the annual burden on the Exchequer in respect of housing was over £13,500,000, and the annual burden on the rates was something like £2,750,000. Yet in spite of that great expenditure it must be admitted that the housing problem, at any rate as regarded the people who could pay only low rents, was not anywhere near solution. An article appeared not long ago in THE LANCET on the minimum cost of a physiologically adequate diet for working-class families. It was calculated that at that time the minimum expenditure on food under the best possible conditions of household management and economic purchasing should be 7*s.* per week. Yet there were cases, by no means exceptional, in which the sums left after paying rent varied from 1*s.* 7*d.* per head up to 5*s.* 4*d.* per head. The result of the high level of rents was to produce in those families, not perhaps starvation, but conditions under which malnutrition was inevitable. Housing conditions were vitiating and taking away the value of the social services and all the efforts to produce a healthy and sound community.

MOTION ACCEPTED BY GOVERNMENT

Mr. SHAKESPEARE (Parliamentary Secretary to the Ministry of Health), replying to the debate, said that owing to the fact that the Housing Bill was not yet in the hands of members, the House was precluded from discussing that night what really mattered. He could say, however, that the Government gladly accepted Mr. Briant's motion. He presumed that the hon. Member did not pledge the Government to any particular course, or to continue any existing policy, but that he would give them latitude to explore any and every avenue if their object was the same—to secure the provision of an adequate supply of houses. This was a problem which all parties had been trying to face in a non-party spirit, and the more they could rescue housing policy from party politics the better. There had been built in post-war years 1,961,000 houses, of which 1,101,000 have been assisted by subsidy and 860,000 by private enterprise, unassisted. That was a record of which any country could be proud. One could assume that

the bulk of the 1,101,000 houses, consisting mainly of building by local authorities, were of the working-class variety. In fact the recent White Paper which dealt with the statistics of rent restriction pointed out that new houses to the extent of 700,000 had been built which came within the compounding limits of £13 rateable value in the provinces and £20 in London. That was 700,000 houses which were, broadly speaking, houses built for the working-classes. Now as to the question of inactivity on the part of the present Government. This last year, taking the period down to September, 1932, 69,000 subsidised houses had been built; that compared with 62,000 in the previous year when the Labour Government were in office. Taking the effort of private enterprise, unassisted, he found that 133,000 houses had been built in each year, and whereas down to Sept. 30th, 1931, 195,000 houses in all had been built, during the year the National Government had been in charge 202,000 houses had been built. They could take credit for that.

IMPROVED OUTLOOK IN HOUSING

It was perfectly true, Mr. Shakespeare continued, that this was a most favourable time for a great step forward, whether they considered the question of the provision of working-class houses or the problem of the attack on the slums. There were four new factors which had completely altered the whole housing outlook. The first was the provision of cheap money owing to the sacrifices which the country endured last year. The second new factor was the fall in the cost of building, and these had meant the appearance of a new factor—namely, an economic rent, which had not existed since the war. The fourth factor, which he thought was the most important, was the appearance of the investor in the small working-class house market. All the evidence which they had at the Ministry of Health, and all the evidence give by the builders and by those who knew, was to the effect that there was going to be an unrivalled demand for investment in property of the working-class type, even at a rate of 4½ per cent. Once that happened the Government were bound to review the whole question of the subsidy. He was not entitled to say what were the intentions of the Government—though everyone knew them—but he would propound this conundrum. If they continued the subsidy after an economic rent had been reached they must justify themselves to the taxpayers, and if they took off the subsidy they must justify themselves to the housing experts. The Government would not dream of reducing or withdrawing the subsidy unless they were convinced that such a course was justified, and that the reduction or withdrawal of the subsidy would in no way affect the provision of those working-class houses at economic rents which the whole House demanded.

The motion was agreed to.

Housing Bill

On Dec. 15th Sir E. HILTON YOUNG (Minister of Health) moved the second reading of the Housing (Financial Provisions) Bill. The cessation of subsidies in other directions would, he said, give an opportunity for concentrated efforts on the slums. He had in mind a maximum clearance of 12,000 houses a year, and provision would be made in the estimates for an additional £75,000 a year from the Exchequer for this purpose. In winding up a prolonged debate Mr. SHAKESPEARE said he believed that under the new conditions they would get a better type of house at a cheaper cost. The Bill was read a second time.

Cancer Hospital Bill

A Bill is being promoted in the House of Commons this session to enable the Cancer Hospital (Free) to make and accept charges for the accommodation and treatment of certain patients, and for other purposes. At a sitting of the Examiner of Private Bills, held at the House of Commons on Dec. 19th, formal proof was given that the Standing Orders had been complied with. The Bill was ordered to stand over to wait for introduction and first reading in the House of Lords after Christmas. The preamble of the measure states that it is doubtful whether the hospital has power under its constitution to utilise any of its beds for the accommodation of paying patients. The Bill therefore provides that the hospital may maintain such parts of the new building erected in 1930 and 1931, and such beds therein as the president and governors may from time to time prescribe, for the reception of patients who are able and willing to contribute to the cost of such reception and treatment. Power is given to the governors to make charges accordingly.

Essex County Council Bill

The Examiners of Private Bills at the House of Commons on Monday, Dec. 19th, considered the Essex County Council Bill. Proof was given that the Bill complied with the Standing Orders, and the measure was ordered to stand over to wait for introduction and first reading in the House of Commons after the Christmas adjournment. The Bill contains provisions prohibiting the pollution of streams, and there are special clauses relating to establishments for massage and special treatment. It is proposed that when this part of the Bill is brought into operation in any part of the county no person in that area shall carry on an establishment for massage or special treatment without a licence from the county council. The treatment in question is defined as (*a*) massage, manicure, or chiropody; (*b*) radiant heat, light, electric vapour, or other baths for therapeutic treatment; and (*c*) other similar treatment. The council seek power to make by-laws regulating such establishments, and they and other local authorities would have powers under the Bill of inspection.

In the case of establishments carried on by medical practitioners the provisions of the Bill will not apply if a certificate signed by two other medical practitioners has been lodged with the council. There is also a clause exempting hospitals, infirmaries, and institutions maintained by local authorities, or bodies constituted by Parliament, or incorporated by Royal Charter; any hospital being a constituent of the British Hospital Association, or recognised as a voluntary hospital by any voluntary hospital committee; and any registered nursing home, or any nursing home exempted from registration by a local authority or the Minister.

Antivivisection Petition

In the House of Commons on Tuesday, Dec. 20th, Mr. LANSBURY, Leader of the Opposition, presented a petition signed by 5684 persons stating that they believed vivisection to be morally unjustifiable, useless, dangerous, and demoralising to the community, and earnestly praying the House to pass a Bill withdrawing the sanction of the law from the practice.

HOUSE OF COMMONS

WEDNESDAY, DEC. 14TH

Sale of Radio-active Substances

Mr. STOREY asked the Minister of Health whether he proposed to take steps to control the preparation, advertisement, and sale of remedies containing, or purporting to contain, radium or radio-active substances, in view of the danger to public health arising from the uncontrolled sale of these articles.—Mr. SHAKESPEARE (Parliamentary Secretary to the Ministry of Health) replied: Legislation would apparently be required to give effect to my hon. friend's proposal, and in the present state of business my right hon. friend fears that he could not properly hold out hope that time will be found available for this purpose.

Mr. STOREY: In view of the opinions expressed by the Chairman of the National Radium Commission last week, will hon. gentleman discuss the matter with him and consider it further?

Mr. SHAKESPEARE: I have seen the report of his speech and one danger seems to be that persons who suck radio-active paint brushes may become phosphorescent at night.

Mr. STOREY: Is the hon. gentleman aware that it is much more serious than that, and that a number of people have lost their lives?

No further answer was given.

THURSDAY, DEC. 15TH

Duties of Metropolitan Police

Mr. EDWARD WILLIAMS asked the Home Secretary whether he was aware of the increase in the number of the duties carried out by the metropolitan police (such as traffic control, census work, and inspection under the Food and Drugs Acts) which impaired the efficiency of the service of its primary duty, which was the prevention and detection of crime; and what steps he proposed to take to rectify this.—Sir JOHN GILMOUR replied: I am well aware that the police are called upon to perform many duties of public value in addition to their primary duty of maintaining order and preventing and detecting crime. The Commissioner of Police is fully alive to the necessity of reducing the time such duties occupy to a minimum and every effort is made to that end. In the case of traffic control I am looking to automatic traffic light signals to effect a substantial reduction in the number of men employed. The metropolitan police have no duties under the Food and Drugs Acts, and the work they do on the national census is negligible.

Dental Experiments on Animals

Mr. GROVES asked the Home Secretary when certificates were last granted authorising experiments upon animals to the research laboratory of the Royal Dental Hospital and the dates of such certificates; and the nature of the experiments performed under the certificates and the kind of animals upon which the experiments were performed.—Sir J. GILMOUR replied: The last certificates for experiments on animals at the Royal Dental Hospital, London, were allowed to come into operation in October, 1931, and they are still in force. It would be contrary to practice to give information as to the nature of the experiments performed by the person holding them.

Intercepted Telephone Conversations

Mr. DICKIE asked the Postmaster-General whether his attention had been drawn to a recent case before the General Medical Council in which an intercepted telephone conversation was used in evidence, and whether he would take steps to ensure that telephone conversations were not intercepted and divulged by post office servants.—Sir KINGSLEY WOOD replied: I am glad to have the opportunity of correcting the erroneous impression to which this case appears to have given rise. The conversation referred to by my hon. friend was neither intercepted nor divulged by any post office servant. I have, of course, no power to prevent subscribers publishing what is said over their own telephone lines.

Infant's Death after Vaccination

Mr. GROVES asked the Minister of Health whether his attention had been drawn to the recent death of a 6-months' old child, Joan Brady, at Liverpool, 13 days after vaccination by a public vaccinator, the death being attributed at a coroner's inquest to acute tuberculosis; whether the case was investigated by his medical officials; whether the tuberculosis was of an encephalitic character; and if he would hold a further inquiry into the case.—Sir E. HILTON YOUNG replied: Yes, Sir. The clinical history of this case and the notes of the post-mortem examination were asked for immediately my attention was drawn to the case. These documents support the finding of the inquest and show that the cause of death was generalised tuberculosis, including tuberculous encephalitis (which should be differentiated from post-vaccinal encephalitis). I see no ground for further inquiry.

Radium Supplies

Mr. CAPORN asked the Minister of Health whether he was aware that the Radium Commission had refused to supply any radium to the Nottingham Radium Institute for use in connexion with the general and other hospitals in Nottingham; and whether he would take any action to secure for these institutions and the areas they served a fair share of the radium held by the Commission for the benefit of the nation.—Sir E. HILTON YOUNG replied: The Radium Commission are not appointed by me, but are constituted by Royal Charter. I will, however, bring my hon. friend's representations to the notice of the Commission, and will inform him in due course of the result.

Typhoid at Malton

Mr. GROVES asked the Minister of Health how many deaths had occurred in the outbreak of typhoid due to sewage-contaminated water at Malton, Yorkshire; how many of the victims were inoculated against typhoid; and was the doctor who died one of those who had been inoculated.—Sir E. HILTON YOUNG replied: The number of deaths is 22. The precise number of patients inoculated is not yet known, but I am informed that neither the doctor nor any other patient was inoculated before contracting the disease.

MONDAY, DEC. 19TH

Maternal and Infant Mortality

Mr. GORDON MACDONALD asked the Minister of Health (1) the infant mortality-rates for the boroughs of London showing eastern, northern, western, and southern districts separately, for the years 1930 and 1931; and also the figures for the county of London for the same years; (2) the infantile mortality figures for 1930 and 1931 for the following towns in Lancashire: St. Helens, Warrington, Bolton, Manchester, Preston, Burnley, Liverpool, Salford, Oldham, Bootle, and Wigan; and (3) the average maternal mortality-rates for the years 1923 to 1929, and the actual maternity mortality-rates for 1930 and 1931, for the towns of Bolton, Bury, Oldham, Preston, Burnley, and Wigan; and the average rate for England and Wales for the year 1931.—Sir E. HILTON YOUNG replied: The average annual maternal mortality-rates per 1000 live births for the period 1923–29, inclusive, for the towns mentioned in the third question were as follows: Bolton, 5·23; Bury, 6·81; Oldham, 6·79; Preston, 5·86; Burnley, 4·90; Wigan, 6·44. These figures are based on live births only, since stillbirth registration was not in force during the whole period. The whole of the rest of the information asked for will be found in Table 10 of the Registrar-General's Statistical Review for 1931 (Tables, Part I.). The maternal mortality-rates contained in that table are based on total (live and still) births.

Water-supplies in Yorkshire

Major CARVER asked the Minister of Health if he was aware of the shortage of the domestic water-supplies in and around the neighbourhood of Brough, in East Yorkshire; and if he would institute an inquiry in the interests of public health and sanitation.—Sir E. HILTON YOUNG replied: I am aware of this difficulty. The duty of providing an adequate water-supply for Brough devolves on the Elloughton-cum-Brough water company, who have special statutory powers. The statutory provisions do not give me any jurisdiction. I have, however, communicated with the Beverley rural district council, and they are actively considering, in consultation with the company and a neighbouring water authority, what steps can be taken to improve the supply. I am keeping in close touch with the situation.

Insured Persons and Disablement Benefit

Mr. RHYS DAVIES asked the Minister of Health the total number, male and female, respectively, of persons under the national health insurance scheme drawing disablement benefit.—Sir E. HILTON YOUNG replied: The information desired by the hon. Member is not available, and could only be obtained by examining the records of the 7000 approved societies and branches responsible for the payment of disablement benefit.

Dartmoor Convict's Illness

Mr. MAXTON asked the Home Secretary whether he was aware that Frederick Amey, one of the prisoners who recently escaped from Dartmoor prison, and subsequently recaptured, was now seriously ill in hospital from injuries to the head; how these injuries were incurred; and whether this prisoner was liable to additional punishments for his attempted escape, and, if so, by whom such punishments were decided.—Sir J. GILMOUR replied: This prisoner has been seriously ill, but not from any injuries. He was removed to the prison hospital on the 3rd inst. in consequence of a rise in temperature, and was found to be suffering from congestion of the lungs, for which he was treated. This has now cleared up, and he is on his way to recovery. Before removal to hospital the prisoner had been receiving treatment for minor head injuries caused when he was struck by prisoner officers after he had assaulted the governor. The prisoner has been awarded punishment by the Board of Visitors as a result of his escape.

TUESDAY, DEC. 20TH

Explosions in Mines

Mr. MAXTON asked the Secretary for Mines if, having regard to the large number of explosions in mines in recent times, he would insist on a wholesale renewal and extension of ventilating plant.—Mr. E. BROWN replied: In reply to a supplementary question on Dec. 13th, I stated the annual numbers of explosions and deaths from explosions since 1927. A study of these and of earlier figures adds emphasis to the imperative need for our utmost vigilance and effort in the application and improvement of preventive measures,

but it does not justify the inference that ventilating plant is generally obsolete or inadequate.

Milk Pasteurisation

Captain ERSKINE-BOLST asked the Minister of Health how many municipalities possessed the power at the present time to compel the pasteurisation of all milk other than Certified milk brought into their area. Mr. SHAKESPEARE replied: My right hon. friend is not aware that any municipality in England or Wales possesses this power at present.

Mr. CHRISTIE asked the Minister of Health if he had information showing what proportion of the London milk-supply was pasteurised before distribution to the consumer. —Mr. SHAKESPEARE replied: My right hon. friend cannot give any precise figure but it is generally estimated that something over 90 per cent. of the milk-supply of London is treated by heat before distribution to the consumer. He is unable to say how much of this milk is pasteurised in accordance with the method prescribed in the Milk (Special Designations) Order, 1923.

MEDICAL NEWS

University of Cambridge

The following degrees were recently conferred:—

M.B. & B.Chir.—A. K. Monro, B. F. Longbotham, A. R. Adderley, and C. D. Evans.

M.B.—J. M. Vaizey.

University of London

At recent examinations the following were successful:—

THIRD EXAMINATION FOR M.B., B.S.

Honours.—(*d*) C. G. Barnes, St. Mary's Hosp.; (*a*, *c*, *d*, *University Medal*) J. D. H. Bird, King's Coll. Hosp.; (*d*) J. R. Blackburne, St. Bart.'s Hosp.; (*d*) E. A. Devenish, Univ. Coll. Hosp.; (*a*) A. E. Francis, St. Bart.'s Hosp.; (*a*) K. C. Priddy, London Hosp.; and (*c*) C. H. Rogerson, Guy's Hosp.

(*a*) Distinguished in Medicine. (*c*) Distinguished in Forensic Medicine and Hygiene. (*d*) Distinguished in Surgery.

Pass.—Hamish Allan, Middlesex Hosp.; R. E. Angel, St. Bart.'s Hosp.; Julia C. H. Avery, St. Mary's Hosp.; Malcolm Baillie, King's Coll. Hosp.; Helen Baker, Royal Free Hosp.; E. T. Bannister, Univ. Coll. Hosp.; F. R. Bettley, Univ. Coll. Hosp.; Karl Biden-Steele, Guy's Hosp.; Henri Blumovitch, St. Bart.'s Hosp.; W. H. Bradbeer, Guy's Hosp.; Samuel Burke, St. Bart.'s Hosp.; Barbara G. C. Clarke, Univ. Coll. Hosp.; Joyce M. G. Clogg, Roy. Free Hosp.; H. N. Collier, Guy's Hosp.; D. F. L. Croft, St. Bart.'s Hosp.; Janet M. Done, Roy. Free Hosp.; K. V. Earle, St. Thomas's Hosp.; H. G. Edwards, St. Bart.'s Hosp.; David Erskine, Guy's Hosp.; E. S. Evans, St. Bart.'s Hosp.; T. B. Field, Univ. Coll. Hosp.; Kitty Fraser, Roy. Free Hosp.; D. H. Fulton, King's Coll. Hosp.; R. G. Gilbert, St. Bart.'s Hosp.; George Gilchrist, Guy's Hosp.; A. M. Gill, Middlesex Hosp.; A. C. Gladstone, St. Thomas's Hosp.; J. B. Great Rex, St. Bart.'s Hosp.; D. C. Harris, Middlesex Hosp.; E. S. Harverson, Univ. Coll. Hosp.; W. P. Hedgcock, St. Thomas's Hosp.; L. A. Hiscock, St. Bart.'s Hosp.; M. S. Holzman, London Hosp.; M. D. C. Hosford, St. Bart.'s Hosp.; Elizabeth M. Hutton, Roy. Free Hosp.; Ursula Y. im Thurn, Univ. Coll. Hosp.; D. W. James, Guy's Hosp.; K. L. James, Univ. Coll. Hosp.; K. C. Jeffery, London Hosp.; Agnes V. Kelynack, Roy. Free Hosp.; Victoria H. King, Roy. Free Hosp.; L. E. D. Knights, Middlesex Hosp.; C. B. Lanyon, Univ. Coll. Hosp.; L. W. Lauste, St. Thomas's Hosp.; G. A. M. Lintott, Guy's Hosp.; J. S. MacVine, St. Bart.'s Hosp.; S. F. Marshall, St. Bart.'s Hosp.; Hermia M. Mills, Roy. Free Hosp.; H. S. Morton, London Hosp.; R. B. Munro, Univ. Coll. Cardiff and Univ. Coll. Hosp.; T. H. Parkman, Charing Cross Hosp.; R. E. J. Pembrey, St. Thomas's Hosp.; Leah Reder, Roy. Free Hosp.; R. G. Reid, Guy's Hosp.; L. O. Roberts, St. Bart.'s Hosp.; Jack Sakula, Middlesex Hosp.; Margaret Skelton, Univ. Coll. Hosp.; R. N. C. Smith, Guy's Hosp.; R. G. W. Southern, St. Thomas's Hosp.; Charlotte M. H. G. Sparrow, Roy. Free Hosp.; Thomas Standring, King's Coll. Hosp.; Rupert Sykes, Victoria Univ. of Manchester; G. H. Taylor, Guy's Hosp.; Hetty C. Tester, Roy. Free Hosp.; V. C. Thompson, St. Bart.'s Hosp.; J. B. L. Tombleson, St. Thomas's Hosp.; Greta Traub, King's Coll. Hosp.; R. L. Waterfield, Guy's Hosp.; A. J. Whitaker, Univ. Coll. Hosp.; A. J. White, Middlesex Hosp.; H. R. I. Wolfe, St. Thomas's Hosp.; J. L. Woodhouse, Guy's Hosp.; S. W. Wright, Guy's Hosp.; and Joshua Zeitlin, London Hosp.

The following candidates have passed in one of the two groups of subjects:—

Group I.—G. T. Allen, St. Thomas's Hosp.; W. M. Capper, St. Bart.'s Hosp.; Kitty K. Cohen, Univ. Coll. Hosp.; Leslie Dexter, St. Bart.'s Hosp.; G. H. Gibbens, St. Thomas's Hosp.; Phyllis N. Greene, Roy. Free Hosp.; Anthony Hollingsworth, St. Thomas's Hosp.; John Howkins, Middlesex Hosp.; T. G. Hudson, St. Thomas's Hosp.; Katherine M. Jones, Roy. Free Hosp.; W. S. G. Lawson, St. Thomas's Hosp.; T. S. Nicol, Charing Cross Hosp.; Hugh Ramsay, Middlesex Hosp.; M. H. P. Sayers, St. Thomas's Hosp.; and V. C. Snell, St. Bart.'s Hosp.

Group II.—W. N. W. Barns, Univ. Coll. Hosp.; R. H. Berry, Univ. Coll. Hosp.; Mary L. Birkett, Roy. Free Hosp.; B. F. M. Bond, Westminster Hosp.; W. H. Cartwright, St. Bart.'s Hosp.; C. P. Collins, Univ. Coll. Hosp.; M. G. H. Cooray, Univ. Coll. Hosp.; D. R. Crabb, St. Bart.'s Hosp.; L. F. Day, St. Bart.'s Hosp.; T. A. Gavin, Guy's Hosp.; Mary E. Gould, Roy. Free Hosp.; Freda M. B. Harmer, Roy. Free Hosp.; Helen A. Hatrick, Univ. Coll. Hosp; R. A. Q. Lay, Guy's Hosp.; R. G. Macfarlane, St. Bart.'s Hosp.; H. A. Magnus, St. Bart.'s Hosp.; G. W. May, London Hosp.; Roy Parkinson, London Hosp.; Henry Silverstein, St. Bart.'s Hosp.; A. M. Stewart-Wallace, Univ. Coll. Hosp.; Frank Summers, King's Coll. Hosp.; H. M. Williams, St. Bart.'s Hosp.; and R. F. Winckworth, St. Thomas's Hosp.

At a meeting of the senate on Dec. 14th the degree of D.Sc. in anatomy was conferred upon Mr. J. E. S. Frazer, F.R.C.S., professor of anatomy in the university at St. Mary's Hospital medical school, and on Mr. C. P. G. Wakeley, F.R.C.S., surgeon to King's College Hospital. The William Julius Mickle Fellowship has been awarded to Mr. G. F. Marrian, D.Sc., lecturer in physiology at University College, and the Laura de Saliceto studentship to Dr. Alexander Haddow.

Royal College of Surgeons of England

At the Primary Examination for the Fellowship, held on Dec. 6th–17th, 188 candidates presented themselves, of whom 53 were approved and 135 were rejected. The following are the successful candidates:—

D. R. Ayyar, M.B. Madras, London; K. S. Ayyar, M.B. Madras, Guy's; R. Barnes, M.B. Manch.; H. H. F. Barns, Univ. Coll.; T. L. J. Barry, M.B. N.U.I., Cork and Middlesex; D. J. Bradley, Dublin; W. A. C. K. N. Bruce, B. Chir. Camb., St. Thomas's; F. N. Chenhall, M.B. Sydney, Middlesex; A. R. Clarke, M.B. Lond., Guy's and Middlesex; H. L. G. Davies, M.B. Wales, Cardiff and St. Bart.'s; T. Denness, St. Thomas's; M. Ellis, B.Chir. Camb., Leeds; F. H. H. Finlaison, M.R.C.S., Camb. and St. Mary's; E. D. B. Freeeman, Univ. Coll.; F. P. Furkert, M.B. N.Z., Otago and Univ. Coll.; A. F. Goode, M.B. Birm., Middlesex; W. R. Henderson, M.B. Edin.; H. M. Hill, M.B. Melb., Middlesex and St. Mary's; W. W. Jolly, M.B. Adelaide, Middlesex; L. R. Jordan, M.B. Brist., Middlesex; A. R. Kelsall, Camb. and St. Bart.'s; D. Kendall, Oxf. and St. Thomas's; A. L. Kenyon, M.B. Vict., Manchester; B. T. Keon-Cohen, M.B. Melb.; G. E. Larke, M.B. Sheff., Durham; W. A. Law, Camb. and London; A. Logan, M.B. St. And.'s; K. G. F. Mackenzie, Camb. and St. Thomas's; H. F. McNickle, M.B. N.Z., Otago; W. N. Mann, Guy's; J. A. S. Marr, M.B. Cape, Middlesex, St. Mary's, and St. Bart.'s; S. G. Mayer, Camb. and London; P. B. Moroney, M.B. Liverp., London; G. K. Muiki, M.B. Camb., Middlesex; R. Nagendran, M.B. Madras, Middlesex; S. G. Nardell, King's Coll.; Doris E. O'Doherty, M.B. Lond., Lond. Sch. Med. for Women; J. A. Pocock, M.B. Camb., Univ. Coll. and St. Mary's; F. Radcliffe, B.Chir. Camb., St. Bart.'s; C. G. Rob, Camb. and St. Thomas's; N. H. Robinson, M.D. Melb., Middlesex; H. W. Rodgers, M.R.C.S., St. Bart.'s; P. C. Sanyal, M.R.C.S., Calcutta and King's Coll.; B. Schulenburg, M.B. Cape; J. K. Stanger, M.B. Durh.; A. Taylor, M.B. Manch.; F. H. Thomas, Camb. and St. Thomas's; H. R. Thompson, M.B. Camb., London; O. S. Tubbs, B.Chir. Camb., St. Bart.'s; R. J. Twort, Camb. and King's Coll.; P. R. Wheatley, Guy's; E. B. Whittingham, M.B. Liverp.; and W. R. Winterton, M.R.C.S., Camb. and Middlesex.

University of Manchester

Dr. Harold Leeming Sheehan, assistant lecturer, has been appointed lecturer in pathology, and Dr. Raymond Whitehead, demonstrator in pathology, has been appointed assistant lecturer.

At recent examinations the following were successful:—

FINAL EXAMINATION FOR M.B., CH.B.

A. S. Beer, M. M. Cohen, Patience Craig, C. H. Gattie, William Hall, J. D. Lendrum, Marion W. Perry, Brendan Sheehan, Colin Starkie, Muriel N. Strange, and Simon Sutton.

Part I.—S. A. Cohen, Harry Fleming, G. H. Moore, Roland Nightingale, John Schofield, and J. L. D. Williams.

University of Edinburgh

The following degrees and diploma have been recently conferred:—

M.D.—* J. W. A. Hunter, R. D. M'Allister, ‡ J. G. S. M'Queen, ‡ S. T. Mook-Sang, W. R. Playfair, and ‡ I. M. Robertson.

D.Litt.—‡ W. G. A. Robertson.

D.Sc.—Thomas Ferguson.

M.B., Ch.B.—E. O. Bell, Ian Buchanan, R. L. Cormie, J. F. Curr, J. J. de Villiers, T. A. Don, J. E. Dunlop, George Fair, A. R. W. Gabriel, D. H. Gill, James Graham, W. A. S. Grant, M. F. Grieve, E. C. Harbottle, J. P. Heron, M. I. Higab, M. N. Hoyte, John Hutton, A. C. MacEwen, R. M. Mackay, I. F. MacKenzie, N. A. M. Mackinnon, Julius Meyer, I. R. Milne, K. M. Mistry, A. R. Newcombe, R. B. Phillips, Murray Port, Nandan Prasad, Hon-Hang Tai, G. S. Thoms, E. J. Thomson, F. M'C. Thomson, K. C. P. Thomson, Driekie van der Merwe, and Elspeth M. Warwick.

Diploma in Psychiatry.—‡ Robert Freeland Barbour.

* Commended for Thesis. ‡ In absentia.

The Wellcome gold medal in the history of medicine has been awarded to James Norman Davidson, and the silver medal to William M'Intyre Wilson.

University of Birmingham

The following degrees were recently conferred :—

M.B., Ch.B.—Phyllis E. Dain, Muriel K. Garnick, D. M. I. Harmar, Hyacinth I. Lightbourne, Lois M. Marris, W. L. Price, Charles Ramsdale, and C. U. Wickham.

B.D.S.—* P. J. Stoy and S. J. Foster.

* With honours.

Diplomas have been awarded as follows :—

L.D.S.—A. J. Boylin, E. R. Hanlan, Eric Horton, W. H. E. Hughes, P. E. Jennens, Donald Malcolm, and C. W. Upton.

University of Durham.

On Dec. 17th the following degrees and licence were conferred :—

M.D.: Practitioners of 15 years' standing.—B. G. Mallya and F. L. Spalding.

M.B., B.S.—C. B. Bhugra, P. M. Coats, J. A. Harper, R. S. Holcombe, S. M. Parker, and John Short.

L.D.S.—Allon Burn.

University of Liverpool

At recent examinations the following candidates were successful :—

M.D.—D. H. Collins and Honora J. Twomey.

FINAL EXAMINATION FOR M.B., CH.B.

Part A (1924 Regulations).—A. J. L. Bolger, A. Gleave, E. L. Jones, Joan M. Matthews, D. Simpson, W. G. Timmis, and O. Walker.

Part B.—J. Amos, F. C. Angior, G. R. Critien, J. F. Foulkes, A. J. Helfet, C. Y. Howarth, T. G. Richards, Kathleen E. Slaney, K. W. Stroude, E. Taylor, R. H. Thewlis, and J. L. Williams.

Part I. (1929 Regulations).—Jannett C. Evans, * A. O. Karstaedt, Kathleen M. Kavanagh, S. Shulman, and R. E. Wilson.

Part II.—C. H. H. Bryson.

Part III. (1923 Regulations).—H. Graf and R. G. Walker.

* With distinction in pharmacology and general therapeutics.

DIPLOMA IN TROPICAL MEDICINE

F. Bando, R. Bowesman, C. T. Chan, H. S. Hall, L. C. Ling, Greta Lowe, B. S. R. Nirodi, S. E. Onwu, C. R. C. Rainsford, Margaret P. Roseveare, R. B. S. Smith, T. C. Y. Sun, J. S. Tomb, and F. D. Zau.

Dr. B. S. R. Nirodi has been recommended for the Milne medal.

Food Education Society

Dr. M. O. Bircher-Benner, of Zurich, will give a lecture for this society on the Prevention of Disease by Correct Feeding at the annual conference of Educational Associations at University College, Gower-street, London, on Friday, Jan. 6th, at 11 A.M. Dr. G. E. Friend, medical officer of Christ's Hospital, will take the chair.

The Fripp Lectureship

The late Sir Alfred Fripp left a sum of money to found an annual lectureship on Happiness and Success. The second lecture will be given by Lord Baden-Powell, at 5.30 P.M., on Tuesday, Jan. 24th, at University College, Gower-street, London, W.C. Admittance is by ticket, and application should be made to the secretary, 19 Portland-place, London, W.1.

Medical Society of London

The programme of the Medical Society of London during the second half of the winter session has now been issued. It opens with a pathological meeting on Jan. 9th, after which, on the 23rd, there will be a discussion on Anæsthesia during Labour, introduced by Mr. Leslie Williams, Dr. Douglas Belfrage, and Dr. Glyn Hughes. On Feb. 13th Dr. Ernest Young, Mr. G. Gordon-Taylor, and Dr. G. R. M. Cordiner will open a discussion on the Treatment of Peptic Ulcers by Duodenal Feeding, and on the 20th the first Lettsomian lecture will be given. March 1st and 6th are to be the dates of the second and third Lettsomian lectures which will be delivered by Mr. Zachary Cope, on the Pathology of Acute Abdominal Disease. A discussion will be held on Feb. 27th on the Increased Frequency of Fevers of the Undulant Type in Non-Tropical Countries and its Relationship to Infection by Cow's Milk, when the principal speakers will be Dr. P. H. Manson-Bahr, Prof. G. S. Wilson, and Dr. Theodore Thompson. The next discussion is on March 13th, and the subject, introduced by Mr. A. J. Walton, Sir William Willcox, and Prof. E. C. Dodds, is Chronic Pancreatitis. The last ordinary meeting, on March 27th, will be devoted to a discussion on Headache and Pain in Relation to Chronic Inflammation of the Nasal Accessory Sinuses, which will be opened by Mr. Herbert Tilley and Dr. Wilfred Harris, and the last fixture of the season is the annual general meeting on May 8th, when Sir Thomas Horder will deliver the annual oration. The annual dinner will be held at the Trocadero Restaurant, London, W., on Wednesday, March 8th.

University of Cairo

Dr. A. F. Bernard Shaw, lecturer in pathology in the University of Durham College of Medicine, Newcastle-on-Tyne, has been appointed professor of pathology in the University of Cairo. Dr. Shaw, who is a graduate of Dublin University, was pathologist to the Egyptian Expeditionary Force during the late war.

University College, Nottingham

Mrs. Massey and Mrs. Massey Stewart have endowed a Fellowship of £400 a year for three years for the development of physical methods in the diagnosis and cure of cancer. Mr. L. A. Woodman has been appointed the first research Fellow. The local branch of the British Empire Cancer Campaign is contributing £500 for the purchase of instruments and £100 annually for three years towards a biochemist's assistance.

Poplar Hospital for Accidents

At the annual festival dinner last week it was stated that the hospital authorities are attempting to cover the gap between the age when a girl leaves school and the age at which she is eligible to become a probationer nurse. The experiment consists in the hospital awarding two scholarships annually of £52 each to enable girls to remain at school until they are old enough to join the nursing staff. It has become imperative to enlarge the out-patients' department at a cost of £30,000. The executors of the late Mr. Bernhard Baron have given £10,000; the hospital has saved a similar sum, and a further £13,000, including £5000 from Lord Wakefield, who presided, was announced at the dinner.

Nordhoff-Jung Cancer Prize

The Dr. Sophie A. Nordhoff-Jung prize for the best work in cancer research in recent years has been awarded to Dr. Max Askanazy, professor of general pathology in the University of Geneva. The committee making the award consisted of Profs. M. Borst, A. Doederlein, and E. von Romberg, of Munich, and F. Sauerbruch, of Berlin, and their decision was unanimous. In announcing it Prof. von Romberg states that the recipient is the first to have achieved valuable results in experimental research on the significance of embryonic cells in the development of tumours. "In addition to his experimental research work, Prof. Askanazy not only contributed considerably to the solution of important but specific problems in the knowledge of neoplasms, but also has, through his classical and critical presentation of the larger and general problems in the same field, been a remarkable inspirational force."

Hunterian Society

A dinner meeting of this society was held at Simpson's Restaurant, Cheapside, on Dec. 19th, the president, Dr. Nathan Raw, welcoming a large number of fellows and guests. After dinner the hon. treasurer, Dr. Irwin Moore, presented the society with a silver loving cup, which had been given him by Mr. James, who had been manager at Simpson's for many years, and which had been in the possession of Simpson's for at least 80 years. He had had the cup reconditioned and inscribed. A discussion on Radium in Medical Diseases was then opened by Dr. Howard Humphris and Dr. W. J. O'Donovan, M.P. Dr. Humphris defined the medical use of radium as being that of *mild* radium therapy, as opposed to the destructive dose used in the treatment of tumours. The effect of such mild therapy was to cause widespread cellular stimulation, with resulting beneficial results on the whole body. Such treatment could be given in a great variety of ways—by the use of radio-active pads or surface application of radio-active mud, or by solutions containing small quantities of radon, either swallowed, injected, or inhaled. He said the treatment was useful in a large variety of conditions, but was especially good in relieving pain of a rheumatic type. It was also absolutely safe, and he criticised remarks made by Lord Lee of Fareham in the Silvanus Thompson memorial lecture as being alarmist and inaccurate. The ill-effects mentioned by Lord Lee were due to relatively enormous overdoses. Dr. O'Donovan described the use of radium in various skin conditions, dealing particularly with its value in rodent ulcer, lupus erythematosus, warts, and pruritus ani and vulvæ. He said that increasing use was now being made of the insertion of small screened glass capsules containing radon under the skin. They were left in position for five days, and then removed—if lost, or the thread attached to them broke, it did not matter. A discussion followed. Dr. G. F. Stebbing was very critical of the medical value of mild radium therapy. Dr. Holub, of Joachimsthal, said the wide use of radio-active waters on the continent was surely good evidence. Dr. Justina Wilson spoke of the soothing effect of radio-active pads. She had also once used one with excellent results on a racehorse. Dr. Hernaman-Johnson, Dr. R. King Brown, and Mr. A. Goodwin also spoke.

Extension of Manor House Hospital

The house at Golders Green belonging to the late Madame Pavlova has been bought by the Industrial Orthopædic Society for the extension of Manor House Hospital. It is intended to use it as a women's wing.

Organising a Contributory Scheme

The Board of Swansea Hospital has decided to appoint an organiser of its contributory scheme at a salary of £400 and an allowance of £120 for a car. The salary is to be reconsidered at the end of a year in accordance with results.

Marie Curie Hospital for Cancer

Last week Lady Maureen Stanley presided at a dinner at the Dorchester Hotel to support an appeal for £50,000 for the enlargement of this hospital. At present there are 30 beds, but more accommodation is urgently needed. It is desired to provide an X ray department and a new wing.

A "Garden City" for Asylum Staff

The ceremony of declaring open the site for a garden city consisting of 50 cottages for members of the staff of the Lancashire County Mental Hospital at Rainhill was performed recently. It took the form of planting trees by members of the county council in the gardens of the houses. Formerly the staff were scattered all over the district.

Enlarged Powers for Manchester Infirmary

The governing board of this hospital, the full title of which is "Manchester Royal Infirmary, Dispensary and Lunatic Hospital or Asylum," are, through a Corporation Bill, seeking authority to omit all but the first three words of the name. The Bill will also empower the infirmary, among other things, to own land, establish clinics, and build a wing for paying patients. It is proposed to create an out-patient clinic for mental cases.

Dundee Dental Hospital

At the annual meeting last week it was stated that during the past year all records were broken, there having been nearly 13,000 operations and 11,400 visits paid. There are 37 students from all parts of Scotland, and accommodation for them is insufficient. It is therefore proposed so to extend the building as to accommodate 63 students at a cost of £1500 towards which the Dental Board of the United Kingdom has promised £500.

Metropolitan Hospital Sunday Fund

The annual meeting of representatives of the constituent bodies of this fund was held last week at the Mansion House. The report of the council showed that the collection during the year amounted to £73,641, a decrease of £2534 on 1931. The sum of £26,419 collected in places of worship was £4969 less; donations amounted to £11,265, an increase of £2935. Working expenses were £3056, a reduction of more than £500. The council, it was announced, adhered to its decision not to countenance, in any form, lottery methods for the benefit of the fund, but declined to make a suggested investigation into the funds of hospitals, with a view to stopping contributions to any hospital deriving advantage through sweepstakes or lotteries, or by the gift of any sweepstake or lottery winner.

Worthing Hospital

An appeal is being launched by this hospital to raise funds to build new maternity and paying patients' wards. Accommodation will have to be provided for the additional nursing staff for the new wards and the total sum required will be £8000; £4000 has already been offered if the public will find the other half. Between 1925 and 1931 over £42,000 has been spent on extensions, but there is still much to be done to complete the hospital's original scheme. A new children's ward and the rebuilding of the central part of the institution are pressing needs, but at the moment the governors are concentrating on the provision of maternity and paying patients' wards. The sum of £500 has already been paid, or promised, towards the £4000 needed to secure the like sum.

Appointments

BOOTH, W. G., M.D., B.S. Lond., D.P.H., has been appointed Medical Officer of Health for Holland, Lincolnshire.

CONNELL, J. G., L.R.C.P. Lond., M.R.C.S., Assistant Medical Officer, City of London Maternity Hospital.

GOLDSMITH, W. N., M.D. Camb., M.R.C.P. Lond., Assistant Physician, Skin Department, University College Hospital.

Certifying Surgeons under the Factory and Workshop Acts: LAWRIE, H. B., M.B., Ch.B. Glasg. (Whalley District, Lancaster); and MACKAY, R. L., M.D. Glasg., D.P.H. (Wolverhampton).

Vacancies

For further information refer to the advertisement columns

Ashton-under-Lyne, District Infirmary.—Asst. Radiologist. £400.
Birmingham Royal Cripples Hospital.—H.S. At rate of £200.
Burton-upon-Trent County Borough.—Deputy M.O.H., &c. £600.
Central London Ophthalmic Hospital, Judd-street, W.C.—Sen. and Jun. H.S. £120 and £100 respectively.
Cheadle Royal, Cheshire.—Asst. M.O. £350.
Chelsea Hospital for Women, Arthur-street, S.W.—Registrar and Radium Officer. £75. Pathologist. £40.
Chester Royal Infirmary.—Hon. Gynæcologist.
Cobham, Surrey, Schiff Home of Recovery.—Res. Surg. O. At rate of £200.
Dewsbury and District General Infirmary.—Sen. H.S. £200.
Ealing Borough, Maternity and Child Welfare Services.—Asst. M.O. £450.
East Ham Memorial Hospital, Shrewsbury-road, E.—Res. M.O. At rate of £200.
Glasgow, Hawkhead Asylum.—Jun. Res. M.O. £300.
Gloucester Royal Infirmary and Eye Institution.—Res. Surg. O. and H.S. At rate of £200 and £150 respectively.
Guildford, Royal Surrey County Hospital.—Res. Med. and Surg. Officer and Reg. £250.
Hertford County Hospital.—Sen. H.S. At rate of £200.
Hospital for Consumption and Diseases of the Chest, Brompton, S.W.—H.P. At rate of £50.
Hospital for Women, Soho-square, W.—Surgeon for Out-patients.
Hospital of St. John and St. Elizabeth, 60, Grove End-road, N.W. Res. H.P. At rate of £100.
Huddersfield Royal Infirmary.—Two H.S.'s. Each at rate of £150.
Hull Royal Infirmary.—Third H.S. At rate of £150. Also H.P. for Sutton Branch Hospital. At rate of £160.
Ilford, King George Hospital.—Hon. Neurologist.
Indian Medical Service.—Commissions.
Manchester Ancoats Hospital.—H.P. At rate of £100.
Manchester Hospital for Consumption and Diseases of the Throat and Chest.—Res. M.O. for In-patient Dept. £200.
North Middlesex County Hospital, Edmonton.—Med. Supt. £1300.
Northwood, Mount Vernon Hospital.—Gynæcologist.
Norwich, Norfolk and Norwich Hospital.—H.S. to Special Depts. £120.
Poplar Hospital for Accidents, East India Dock-road, E.—Second Res. O. At rate of £175.
Princess Beatrice Hospital, Richmond-road, Earl's Court, S.W.—Res. M.O. At rate of £110.
Queen's Hospital for Children, Hackney-road, E.—Res. M.O. At rate of £200. Also H.S. and Cas. O. At rate of £100.
Radium Institute, Riding House-street, W.—Hon. Radiologist.
St. Thomas's Hospital.—Res. Asst. Surgeon.
Sheffield, Children's Hospital.—H.P. and H.S. Each at rate of £100.
Sheffield Royal Infirmary.—Ophthalmic H.S. At rate of £80.
Shrewsbury, Royal Salop Infirmary.—Res. H.S. At rate of £160.
Sidcup, Queen Mary's Hospital.—Res. Asst. M.O. £250.
Southern Rhodesia.—Government M.O. £500.
University College Hospital, Gower-street, W.C.—Two Hon. Asst. Surgeons. Also Asst. Surg. to Ear, Nose and Throat Dept.
Weir Hospital, Grove-road, Balham, S.W.—Sen. and Jun. Res. M.O.'s. £200 and £150 respectively.
Westminster Hospital, Broad Sanctuary, S.W.—Asst. Physician for Diseases of Children.
Wolverhampton, Royal Hospital.—H.S. At rate of £100.

The Chief Inspector of Factories announces vacant appointments for Certifying Factory Surgeons at Blackburn, North (Lancaster) and Hayle (Cornwall).

Births, Marriages, and Deaths

BIRTHS

MACAFEE.—On Dec. 4th, at University-square, Belfast, the wife of C. H. G. Macafee, M.B., F.R.C.S. Eng., F.C.O.G., of a son.

UNGLEY.—On Dec. 12th, at Whickham, the wife of C. C. Ungley, M.D., M.R.C.P., of Sunniside, Newcastle-on-Tyne, of a son.

WEBB.—On Dec. 13th, at Welbeck-street, W., the wife of Lieut.-Colonel J. R. D. Webb, I.M.S., of a daughter.

MARRIAGES

BELL—CARR.—On Dec. 15th, at Chelsea Old Church, London, S.W., Robert Harbourne Bruce Bell, M.B., Ch.B. Edin., to Margaret Louise Cathrine, only daughter of the late C. T. Carr, Esq., of Ongar, Essex, and of Mrs. Carr, Wye House, Buxton.

DEATHS

CRAWFORD.—On Dec. 15th, suddenly, at Great Bardfield, Braintree, Colonel Vincent James Crawford, D.S.O., late R.A.M.C., retired.

GLAISTER.—On Dec. 18th, at Newton-place, Glasgow, John Glaister, M.D., LL.D., F.R.F.P.S. Glasg., F.R.S.E., F.C.S., D.P.H. Camb., Emeritus Professor of Forensic Medicine in the University of Glasgow. Also on Dec. 18th, at Newton-place, Glasgow, Mary Scott Clarke, widow of the above John Glaister.

SPRIGGS.—On Dec. 18th at Ruthin, Alice Mary, beloved wife of Edmund Spriggs.

N.B.—A fee of 7s. 6d. is charged for the insertion of Notices of Births, Marriages, and Deaths.

University of Birmingham

The following degrees were recently conferred :—

M.B., Ch.B.—Phyllis E. Dain, Muriel K. Garnick, D. M. I. Harmar, Hyacinth I. Lightbourne, Lois M. Marris, W. L. Price, Charles Ramsdale, and C. U. Wickham.

B.D.S.—* P. J. Stoy and S. J. Foster.

* With honours.

Diplomas have been awarded as follows :—

L.D.S.—A. J. Boylin, E. R. Hanlan, Eric Horton, W. H. E. Hughes, P. E. Jennens, Donald Malcolm, and C. W. Upton.

University of Durham.

On Dec. 17th the following degrees and licence were conferred :—

M.D.: Practitioners of 15 years' standing.—B. G. Mallya and F. L. Spalding.

M.B., B.S.—C. B. Bhugra, P. M. Coats, J. A. Harper, R. S. Holcombe, S. M. Parker, and John Short.

L.D.S.—Allon Burn.

University of Liverpool

At recent examinations the following candidates were successful :—

M.D.—D. H. Collins and Honora J. Twomey.

FINAL EXAMINATION FOR M.B., CH.B.

Part A (1924 Regulations).—A. J. L. Bolger, A. Gleave, E. L. Jones, Joan M. Matthews, D. Simpson, W. G. Timmis, and O. Walker.

Part B.—J. Amos, F. C. Angior, G. R. Critien, J. F. Foulkes, A. J. Helfet, C. Y. Howarth, T. G. Richards, Kathleen E. Slaney, K. W. Stroude, E. Taylor, R. H. Thewlis, and J. L. Williams.

Part I. (1929 Regulations).—Jannett C. Evans, * A. O. Karstaedt, Kathleen M. Kavanagh, S. Shulman, and R. E. Wilson.

Part II.—C. H. H. Bryson.

Part III. (1923 Regulations).—H. Graf and R. G. Walker.

* With distinction in pharmacology and general therapeutics.

DIPLOMA IN TROPICAL MEDICINE

F. Bando, R. Bowesman, C. T. Chan, H. S. Haji, L. C. Ling, Greta Lowe, B. S. R. Nirodi, S. E. Onwu, C. R. C. Rainsford, Margaret P. Roseveare, R. B. S. Smith, T. C. Y. Sun, J. S. Tomb, and F. D. Zau.

Dr. B. S. R. Nirodi has been recommended for the Milne medal.

Food Education Society

Dr. M. O. Bircher-Benner, of Zurich, will give a lecture for this society on the Prevention of Disease by Correct Feeding at the annual conference of Educational Associations at University College, Gower-street, London, on Friday, Jan. 6th, at 11 A.M. Dr. G. E. Friend, medical officer of Christ's Hospital, will take the chair.

The Fripp Lectureship

The late Sir Alfred Fripp left a sum of money to found an annual lectureship on Happiness and Success. The second lecture will be given by Lord Baden-Powell, at 5.30 P.M., on Tuesday, Jan. 24th, at University College, Gower-street, London, W.C. Admittance is by ticket, and application should be made to the secretary, 19 Portland-place, London, W.1.

Medical Society of London

The programme of the Medical Society of London during the second half of the winter session has now been issued. It opens with a pathological meeting on Jan. 9th, after which, on the 23rd, there will be a discussion on Anæsthesia during Labour, introduced by Mr. Leslie Williams, Dr. Douglas Belfrage, and Dr. Glyn Hughes. On Feb. 13th Dr. Ernest Young, Mr. G. Gordon-Taylor, and Dr. G. R. M. Cordiner will open a discussion on the Treatment of Peptic Ulcers by Duodenal Feeding, and on the 20th the first Lettsomian lecture will be given. March 1st and 6th are to be the dates of the second and third Lettsomian lectures which will be delivered by Mr. Zachary Cope, on the Pathology of Acute Abdominal Disease. A discussion will be held on Feb. 27th on the Increased Frequency of Fevers of the Undulant Type in Non-Tropical Countries and its Relationship to Infection by Cow's Milk, when the principal speakers will be Dr. P. H. Manson-Bahr, Prof. G. S. Wilson, and Dr. Theodore Thompson. The next discussion is on March 13th, and the subject, introduced by Mr. A. J. Walton, Sir William Willcox, and Prof. E. C. Dodds, is Chronic Pancreatitis. The last ordinary meeting, on March 27th, will be devoted to a discussion on Headache and Pain in Relation to Chronic Inflammation of the Nasal Accessory Sinuses, which will be opened by Mr. Herbert Tilley and Dr. Wilfred Harris, and the last fixture of the season is the annual general meeting on May 8th, when Sir Thomas Horder will deliver the annual oration. The annual dinner will be held at the Trocadero Restaurant, London, W., on Wednesday, March 8th.

University of Cairo

Dr. A. F. Bernard Shaw, lecturer in pathology in the University of Durham College of Medicine, Newcastle-on-Tyne, has been appointed professor of pathology in the University of Cairo. Dr. Shaw, who is a graduate of Dublin University, was pathologist to the Egyptian Expeditionary Force during the late war.

University College, Nottingham

Mrs. Massey and Mrs. Massey Stewart have endowed a Fellowship of £400 a year for three years for the development of physical methods in the diagnosis and cure of cancer. Mr. L. A. Woodman has been appointed the first research Fellow. The local branch of the British Empire Cancer Campaign is contributing £500 for the purchase of instruments and £100 annually for three years towards a biochemist's assistance.

Poplar Hospital for Accidents

At the annual festival dinner last week it was stated that the hospital authorities are attempting to cover the gap between the age when a girl leaves school and the age at which she is eligible to become a probationer nurse. The experiment consists in the hospital awarding two scholarships annually of £52 each to enable girls to remain at school until they are old enough to join the nursing staff. It has become imperative to enlarge the out-patients' department at a cost of £30,000. The executors of the late Mr. Bernhard Baron have given £10,000; the hospital has saved a similar sum, and a further £13,000, including £5000 from Lord Wakefield, who presided, was announced at the dinner.

Nordhoff-Jung Cancer Prize

The Dr. Sophie A. Nordhoff-Jung prize for the best work in cancer research in recent years has been awarded to Dr. Max Askanazy, professor of general pathology in the University of Geneva. The committee making the award consisted of Profs. M. Borst, A. Doederlein, and E. von Romberg, of Munich, and F. Sauerbruch, of Berlin, and their decision was unanimous. In announcing it Prof. von Romberg states that the recipient is the first to have achieved valuable results in experimental research on the significance of embryonic cells in the development of tumours. "In addition to his experimental research work, Prof. Askanazy not only contributed considerably to the solution of important but specific problems in the knowledge of neoplasms, but also has, through his classical and critical presentation of the larger and general problems in the same field, been a remarkable inspirational force."

Hunterian Society

A dinner meeting of this society was held at Simpson's Restaurant, Cheapside, on Dec. 19th, the president, Dr. Nathan Raw, welcoming a large number of fellows and guests. After dinner the hon. treasurer, Dr. Irwin Moore, presented the society with a silver loving cup, which had been given him by Mr. James, who had been manager at Simpson's for many years, and which had been in the possession of Simpson's for at least 80 years. He had had the cup reconditioned and inscribed. A discussion on Radium in Medical Diseases was then opened by Dr. Howard Humphris and Dr. W. J. O'Donovan, M.P. Dr. Humphris defined the medical use of radium as being that of *mild* radium therapy, as opposed to the destructive dose used in the treatment of tumours. The effect of such mild therapy was to cause widespread cellular stimulation, with resulting beneficial results on the whole body. Such treatment could be given in a great variety of ways—by the use of radio-active pads or surface application of radio-active mud, or by solutions containing small quantities of radon, either swallowed, injected, or inhaled. He said the treatment was useful in a large variety of conditions, but was especially good in relieving pain of a rheumatic type. It was also absolutely safe, and he criticised remarks made by Lord Lee of Fareham in the Silvanus Thompson memorial lecture as being alarmist and inaccurate. The ill-effects mentioned by Lord Lee were due to relatively enormous overdoses. Dr. O'Donovan described the use of radium in various skin conditions, dealing particularly with its value in rodent ulcer, lupus erythematosus, warts, and pruritus ani and vulvæ. He said that increasing use was now being made of the insertion of small screened glass capsules containing radon under the skin. They were left in position for five days, and then removed—if lost, or the thread attached to them broke, it did not matter. A discussion followed. Dr. G. F. Stebbing was very critical of the medical value of mild radium therapy. Dr. Holub, of Joachimsthal, said the wide use of radio-active waters on the continent was surely good evidence. Dr. Justina Wilson spoke of the soothing effect of radio-active pads. She had also once used one with excellent results on a racehorse. Dr. Hernaman-Johnson, Dr. R. King Brown, and Mr. A. Goodwin also spoke.

Extension of Manor House Hospital

The house at Golders Green belonging to the late Madame Pavlova has been bought by the Industrial Orthopædic Society for the extension of Manor House Hospital. It is intended to use it as a women's wing.

Organising a Contributory Scheme

The Board of Swansea Hospital has decided to appoint an organiser of its contributory scheme at a salary of £400 and an allowance of £120 for a car. The salary is to be reconsidered at the end of a year in accordance with results.

Marie Curie Hospital for Cancer

Last week Lady Maureen Stanley presided at a dinner at the Dorchester Hotel to support an appeal for £50,000 for the enlargement of this hospital. At present there are 30 beds, but more accommodation is urgently needed. It is desired to provide an X ray department and a new wing.

A "Garden City" for Asylum Staff

The ceremony of declaring open the site for a garden city consisting of 50 cottages for members of the staff of the Lancashire County Mental Hospital at Rainhill was performed recently. It took the form of planting trees by members of the county council in the gardens of the houses. Formerly the staff were scattered all over the district.

Enlarged Powers for Manchester Infirmary

The governing board of this hospital, the full title of which is "Manchester Royal Infirmary, Dispensary and Lunatic Hospital or Asylum," are, through a Corporation Bill, seeking authority to omit all but the first three words of the name. The Bill will also empower the infirmary, among other things, to own land, establish clinics, and build a wing for paying patients. It is proposed to create an out-patient clinic for mental cases.

Dundee Dental Hospital

At the annual meeting last week it was stated that during the past year all records were broken, there having been nearly 13,000 operations and 11,400 visits paid. There are 37 students from all parts of Scotland, and accommodation for them is insufficient. It is therefore proposed so to extend the building as to accommodate 63 students at a cost of £1500 towards which the Dental Board of the United Kingdom has promised £500.

Metropolitan Hospital Sunday Fund

The annual meeting of representatives of the constituent bodies of this fund was held last week at the Mansion House. The report of the council showed that the collection during the year amounted to £73,641, a decrease of £2534 on 1931. The sum of £26,419 collected in places of worship was £4969 less; donations amounted to £11,265, an increase of £2935. Working expenses were £3056, a reduction of more than £500. The council, it was announced, adhered to its decision not to countenance, in any form, lottery methods for the benefit of the fund, but declined to make a suggested investigation into the funds of hospitals, with a view to stopping contributions to any hospital deriving advantage through sweepstakes or lotteries, or by the gift of any sweepstake or lottery winner.

Worthing Hospital

An appeal is being launched by this hospital to raise funds to build new maternity and paying patients' wards. Accommodation will have to be provided for the additional nursing staff for the new wards and the total sum required will be £8000; £4000 has already been offered if the public will find the other half. Between 1925 and 1931 over £42,000 has been spent on extensions, but there is still much to be done to complete the hospital's original scheme. A new children's ward and the rebuilding of the central part of the institution are pressing needs, but at the moment the governors are concentrating on the provision of maternity and paying patients' wards. The sum of £500 has already been paid, or promised, towards the £4000 needed to secure the like sum.

Appointments

BOOTH, W. G., M.D., B.S. Lond., D.P.H., has been appointed Medical Officer of Health for Holland, Lincolnshire.

CONNELL, J. G., L.R.C.P. Lond., M.R.C.S., Assistant Medical Officer, City of London Maternity Hospital.

GOLDSMITH, W. N., M.D. Camb., M.R.C.P. Lond., Assistant Physician, Skin Department, University College Hospital.

Certifying Surgeons under the Factory and Workshop Acts: LAWRIE, H. B., M.B., Ch.B. Glasg. (Whalley District, Lancaster); and MACKAY, R. L., M.D. Glasg., D.P.H. (Wolverhampton).

Vacancies

For further information refer to the advertisement columns

Ashton-under-Lyne, District Infirmary.—Asst. Radiologist. £400.
Birmingham Royal Cripples Hospital.—H.S. At rate of £200.
Burton-upon-Trent County Borough.—Deputy M.O.H., &c. £600.
Central London Ophthalmic Hospital, Judd-street, W.C.—Sen. and Jun. H.S. £120 and £100 respectively.
Cheadle Royal, Cheshire.—Asst. M.O. £350.
Chelsea Hospital for Women, Arthur-street, S.W.—Registrar and Radium Officer. £75. Pathologist. £40.
Chester Royal Infirmary.—Hon. Gynæcologist.
Cobham, Surrey, Schiff Home of Recovery.—Res. Surg. O. At rate of £200.
Dewsbury and District General Infirmary.—Sen. H.S. £200.
Ealing Borough, Maternity and Child Welfare Services.—Asst. M.O. £450.
East Ham Memorial Hospital, Shrewsbury-road, E.—Res. M.O. At rate of £200.
Glasgow, Hawkhead Asylum.—Jun. Res. M.O. £300.
Gloucester Royal Infirmary and Eye Institution.—Res. Surg. O. and H.S. At rate of £200 and £150 respectively.
Guildford, Royal Surrey County Hospital.—Res. Med. and Surg. Officer and Reg. £250.
Hertford County Hospital.—Sen. H.S. At rate of £200.
Hospital for Consumption and Diseases of the Chest, Brompton, S.W.—H.P. At rate of £50.
Hospital for Women, Soho-square, W.—Surgeon for Out-patients.
Hospital of St. John and St. Elizabeth, 60, Grove End-road, N.W. Res. H.P. At rate of £100.
Huddersfield Royal Infirmary.—Two H.S.'s. Each at rate of £150.
Hull Royal Infirmary.—Third H.S. At rate of £150. Also H.P. for Sutton Branch Hospital. At rate of £160.
Ilford, King George Hospital.—Hon. Neurologist.
Indian Medical Service.—Commissions.
Manchester Ancoats Hospital.—H.P. At rate of £100.
Manchester Hospital for Consumption and Diseases of the Throat and Chest.—Res. M.O. for In-patient Dept. £200.
North Middlesex County Hospital, Edmonton.—Med. Supt. £1300.
Northwood, Mount Vernon Hospital.—Gynæcologist.
Norwich, Norfolk and Norwich Hospital.—H.S. to Special Depts. £120.
Poplar Hospital for Accidents, East India Dock-road, E.—Second Res. O. At rate of £175.
Princess Beatrice Hospital, Richmond-road, Earl's Court, S.W.—Res. M.O. At rate of £110.
Queen's Hospital for Children, Hackney-road, E.—Res. M.O. At rate of £200. Also H.S. and Cas. O. At rate of £100.
Radium Institute, Riding House-street, W.—Hon. Radiologist.
St. Thomas's Hospital.—Res. Asst. Surgeon.
Sheffield, Children's Hospital.—H.P. and H.S. Each at rate of £100.
Sheffield Royal Infirmary.—Ophthalmic H.S. At rate of £80.
Shrewsbury, Royal Salop Infirmary.—Res. H.S. At rate of £160.
Sidcup, Queen Mary's Hospital.—Res. Asst. M.O. £250.
Southern Rhodesia.—Government M.O. £500.
University College Hospital, Gower-street, W.C.—Two Hon. Asst. Surgeons. Also Asst. Surg. to Ear, Nose and Throat Dept.
Weir Hospital, Grove-road, Balham, S.W.—Sen. and Jun. Res. M.O.'s. £200 and £150 respectively.
Westminster Hospital, Broad Sanctuary, S.W.—Asst. Physician for Diseases of Children.
Wolverhampton, Royal Hospital.—H.S. At rate of £100.

The Chief Inspector of Factories announces vacant appointments for Certifying Factory Surgeons at Blackburn, North (Lancaster) and Hayle (Cornwall).

Births, Marriages, and Deaths

BIRTHS

MACAFEE.—On Dec. 4th, at University-square, Belfast, the wife of C. H. G. Macafee, M.B., F.R.C.S. Eng., F.C.O.G., of a son.

UNGLEY.—On Dec. 12th, at Whickham, the wife of C. C. Ungley, M.D., M.R.C.P., of Sunniside, Newcastle-on-Tyne, of a son.

WEBB.—On Dec. 13th, at Welbeck-street, W., the wife of Lieut.-Colonel J. R. D. Webb, I.M.S., of a daughter.

MARRIAGES

BELL—CARR.—On Dec. 15th, at Chelsea Old Church, London, S.W., Robert Harbourne Bruce Bell, M.B., Ch.B. Edin., to Margaret Louise Cathrine, only daughter of the late C. T. Carr, Esq., of Ongar, Essex, and of Mrs. Carr, Wye House, Buxton.

DEATHS

CRAWFORD.—On Dec. 15th, suddenly, at Great Bardfield, Braintree, Colonel Vincent James Crawford, D.S.O., late R.A.M.C., retired.

GLAISTER.—On Dec. 18th, at Newton-place, Glasgow, John Glaister, M.D., LL.D., F.R.F.P.S. Glasg., F.R.S.E., F.C.S., D.P.H. Camb., Emeritus Professor of Forensic Medicine in the University of Glasgow. Also on Dec. 18th, at Newton-place, Glasgow, Mary Scott Clarke, widow of the above John Glaister.

SPRIGGS.—On Dec. 18th at Ruthin, Alice Mary, beloved wife of Edmund Spriggs.

N.B.—A fee of 7s. 6d. is charged for the insertion of Notices of Births, Marriages, and Deaths.

NOTES, COMMENTS, AND ABSTRACTS

THE LATE RESULTS OF ARTIFICIAL PNEUMOTHORAX TREATMENT

THE 276 cases of artificial pneumothorax treated at the tuberculosis clinic of the Paris Faculty of Medicine between 1919 and 1926 have been analysed by Prof. Léon Bernard, Dr. G. Poix, and Dr. A. Bocquet.[1] The further 782 who have received this treatment since 1926 are not included in the present analysis because the object is to reveal late results, but a comparison of the numbers shows that the method has grown in favour. Among the 276 patients in the first period there were only 74 who could not be traced; they included 38 who, on the cessation of the injections, were considered cured. Among the 202 patients whose careers were known there were 94 who were dead or hopelessly ill; 15 who had achieved considerable and permanent improvement as the result of this treatment but who were not quite fit; 19 whose disease was no longer active, but whose pneumothorax was still being maintained as a precaution; and 74 who had been leading normal lives for several years. These 74 represent 27 per cent. of the total, and the percentage is raised to 34 by the inclusion of the 19 patients still receiving injections as an insurance against relapse. If, further, the 38 patients who were lost sight of but were known to be cured when last seen be added, it might be claimed that after an interval of six to thirteen years the treatment had yielded durable and favourable results in 48 per cent. In the period under review, it is stated, this treatment was reserved for serious cases which had failed to respond to less radical measures and which were of long standing. Since then it has been extended to much earlier and slighter cases, and the results now being achieved would probably seem much more favourable.

NEW PREPARATIONS

ESSOGEN.—This is a vitamin concentrate which reaches us from the Biological Laboratories of Lever Bros., Port Sunlight, Cheshire. The preparation obtained a favourable notice through the findings of work by Dr. E. Mellanby and Dr. H. N. Green published in the *British Medical Journal* two years ago. The work was subsidised by the Medical Research Council and the vitamin concentrate has been supplied to many leading hospitals for trial where the normal nutrient is deficient in the diet, or where the pathological conditions seem to be definitely associated with deficiency. A large range of application is thus indicated, and the proprietors have the authority of those who have used the capsules when they make suggestions as to dosage. The capsules, which are biologically tested and standardised to have a blue value of 2000, are recommended to be given in doses of one capsule three times a day in deficiency disease and debility, as after influenza and during the last weeks of pregnancy, while larger doses are recommended—up to two, three, and even five capsules four times a day—in acute pyogenic infections, empyema, septic surgical cases, calculous pyelitis, and acute rheumatism. The preparation is ten times the U.S. cod-liver oil strength.

We have received from Messrs. J. F. Macfarlan and Co., 32, Bethnal Green-road, London, E.1, sample boxes of CHLOROFORM BRISETTES which have been specially prepared for use as an analgesic in childbirth. These are readily crushed capsules, each containing 20 minims of chloroform, and, as is implied in the dose, their employment is not intended to produce anæsthesia. It is suggested that if the pains of childbirth become severe, a brisette may be placed between the folds of a large handkerchief and crushed, when the patient can be instructed to press the handkerchief over her mouth and nose and inhale. This procedure can be followed with safety if only one capsule is used at a time as each pain recurs.

The capsules are being supplied by the National Birthday Trust Fund to the Middlesex, Queen Charlotte's and other hospitals in order to test this method of alleviating pain in maternity cases. A mask for use with these capsules was described in our issue of Nov. 12th.

[1] Presse Méd., Nov. 23rd, p. 1757.

A PRESENTATION TO MR. W. S. MURRELL

ON behalf of 40 authors connected with the University of London Press the manager, Mr. W. Stanley Murrell, has been presented with an excellent portrait of himself, by Mr. R. R. Tomlinson, R.B.A. The presentation was made at a gathering presided over by Mr. S. L. Loney, chairman of the Press and of Convocation, and the directors were represented by Mr. R. P. Hodder-Williams, chairman of Messrs. Hodder and Stoughton, Ltd., and Mr. J. Crowlesmith, chairman of the Master Printers' Federation and deputy chairman of Messrs. Hazell, Watson and Viney, Ltd. Mr. P. B. Ballard, who presented the portrait, emphasised the cordial relations which existed between the University of London Press and its authors. He said the presentation was a spontaneous expression of goodwill and friendliness.

YELLOW FEVER IN HISTORY

A FLEET-SURGEON writes: Your note last week on Surgeon-Captain Dudley's paper on yellow fever reminds me that, though little considered at present, in the past yellow fever has exercised greater influence on war than any disease since the time of Sennacherib. In 1759 Wolfe took Quebec and relieved the American colonists of their fear of the French, allowing them to think it safe to break with the English. But the French still held Louisiana, and claimed the west bank of the Mississippi. Napoleon sent a large expedition to Hayti to support Louisiana, but yellow fever wiped out the expedition, and left Louisiana at the mercy of the English. So, making a virtue of necessity, Napoleon sold Louisiana in 1803 to the United States, and with that went the sovereignty of the vast prairies and the Pacific Coast—a vaster political change than can be ascribed to any other disease.

ANÆSTHESIA RECORD CARDS.—Another reference to our leading article of Nov. 26th (p. 1167) is made by Dr. R. W. Shaw, anæsthetist to Dr. Steevens' Hospital, Dublin, who writes: "It has been my practice for the past four years to take notes of anæsthetic cases, wherever possible, and I have already published statistics on the use of spinocain and percaine. A further paper on nembutal will appear in the next issue of the *Irish Journal of Medical Science*. . . I have devised an anæsthetic chart for use at this hospital; it was primarily for use in cases to which ether or chloroform is given, and capable of being modified where special drugs are used."

FURRED TONGUE.—Dr. J. L. O'Tilley writes: I should be obliged if I could be informed, through the medium of your journal, the reason why a furred tongue is usually a concomitant of derangements of the alimentary canal. No doubt the reply will convey the reasons why all villi of the tongue are not equally affected, and also why the mucous membrane of the mouth and the pharynx remain normal.

"PERPLEXED" desires help in the treatment of intractable sweating in a woman of 64, which began two years ago, is rather more marked in cold weather, and is aggravated at night time. Drugs, such as belladonna and atropine, have been tried without permanent benefit.